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The CHEMIST AND DRUGGIST

RETAILER — WHOLESALER — MANUFACTURER

OCTOBER 21, 1950

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The

CHEMIST AND DRUGGIST

for RETAILER—WHOLESALER—MANUFACTURER

OCTOBER 21, 1950

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NEWS OF THE WEEK

Pharmacy Degree Awards.—The following have received the degree of B.Sc. in Pharmacy at Glasgow University:—J. Henderson; J. R. Houston; A. T. M. Kringle; J. B. Watson.

State-owned Pharmacy for China. — A state-owned company, the China Pharmaceutical Co., has been founded in Tientsin to unify the buying, selling and production of drugs and medicines throughout China and to promote the development of pharmacy in that country.

Madagascar Clove Production.—Madagascar clove production, which had been from 600 to 6,000 tons annually in the decade preceding the war, at present amounts to about 3,000 tons annually. Production of clove oil, however, which had amounted to only 90 tons in 1922, is likely to exceed 800 tons in the current year.

Later Closing Hour Sought.—At a meeting of the Lincoln Executive Council a letter for the local trades council was read requesting that chemists should keep open until 8 p.m. each evening for dispensing. The Executive Council referred the matter to the Hours of Service Committee and advised the trades council that there was already a rota system in operation.

Indian Trade Agreements. — A trade agreement between the Government of India and the German Federal Government for the year to June 30, 1951, has been concluded and ratified. The following are included in the list of goods for export from India to Western Germany:—Crude drugs, valued at $100,000; essential oils, valued at $100,000; and gums, valued at $400,000. — A trade agreement between India and Switzerland for the year to February 28, 1951, provides for the export of essential oils, drugs and herbs from India.

Overseas Economic Surveys.—Further publications in the Board of Trade series of overseas economic surveys published recently have included "Colombia" (1s. 3d.)

Diseases of Tomatoes.—Bulletin No. 77 recently published for the Ministry of Agriculture and Fisheries (H.M. Stationery Office, price 2s. 6d.) includes information on fungi, viruses.

Europeanisation Plan for Chemists.—At the annual meeting of the Chemical Workers' Union, held at Harrogate recently. Mr. Bob Edwards (secretary), moved a resolution (later passed) urging the Government to take the initiative in calling a conference in London for the establishment of a "Chemical House of Europe." He maintained that, from the point of view of maintaining peace, it was of vital importance that the European chemical industry should be co-ordinated under an authority that would not allow cartels to operate. Nearly half a million workers were in the industry, and, on an average, each worker produced £2,500 worth of chemicals a year, which was three times the amount of wealth produced by workers in any other major basic industry.

THE *dispute in the printing trade continues, and* THE CHEMIST AND DRUGGIST *again appears as an emergency edition. In offering apologies for its shortcomings, the Editor acknowledges many messages of appreciation from subscribers that the paper has continued to appear.*

PROPRIETARY MEDICINES IN FRANCE

An Outline of the System of Registration

UNDER a system introduced during the German occupation, but retained after the liberation, France requires medicines intended for sale under coined names to be examined, approved and given a visa before being put on the market, and for branded standard preparations to be registered.

Visa des Specialities

The visa was constituted by an enactment dated September 11, 1941, which stated:—No speciality may be exploited, or publications concerning the speciality published, until after the product has been reviewed and granted a visa by the *Ministre de la Santé Publique et de la Population,* on the recommendation of the *Comité Technique des Specialités.* The institution of the visa caused quite a stir. The *Laboratoire National de Contrôle des Medicaments,* an old-established body, had previously made analyses of pharmaceutical products to prevent frauds (in conjunction with the *Laboratoire de l'Académie* and the *Laboratoire de la Faculté de Médecine*), and had dealt with the registration of specialities when they were exported, which then figured on the list of products acceptable under Social Insurance, although such registration was not a legal necessity. The visa was regarded as a revolutionary measure, and has been the subject of much criticism, especially among pharmacists.

Products to Which Visa Applies

Before applying for a visa the manufacturer of a medicinal preparation in France must ask himself the following questions:—

1.—*Is it a medicament?* To qualify under this title the product, either simple or compound, must be sold in medicinal quantities for the prevention or cure of human ailments.

2.—*Is it a speciality?* By pharmaceutical speciality is understood any medicament prepared in advance for medicinal administration (a) presented under a label giving the name and address of the maker; (b) sold in more than one pharmacy; and (c) possessing either an imaginary name or a common name (i.e., the scientific name of the composition) accompanied by the name of the maker.

Examples are: 1, Formox (imaginary name): eligible. 2. Hexamine Dupont or hexamethylene tetramine Dupont (scientific name, accompanied by the name of maker): still eligible, on the ground t the product is still a speciality, the ad tion of the name Dupont tending to tinguish that hexamine from others.

However, the position under 2 is at o rendered difficult because products "un the identity of Dupont or Pallas or oth adopted by the *Laboratoires Dupont* designate their products, and on sale several shops," raise only the question a hexamine bearing the trade name pont, as might be the case with sod bicarbonate or camphorated oil. Such ducts are in the category "*produit cachet,*" not eligible for visa, but requi registration (see below) and only to advertised under certain conditions.

Whether under a coined name or ur the common name or with the scien denomination, a product sold solely a single pharmacy is a *produit maison,* ject to the ordinary inspection of macies.

"Old" specialities are those that on sale before September 11, 1941, and which a visa was applied before July 1943. The others are classed as new they were created after September 1941. To prevent old products, w make a reappearance, being thought t new, the prudent maker applies im diately for a visa. No new product rec a visa under an imaginary name unle has an original character and therap interest. The candidate has the advan of being able to submit the formula to *Service Central de la Pharmacie* for proval before applying for a visa, and *Service* is able to dissuade unlikely a cants from proceeding further.

To obtain the visa the applicant apply in triplicate, giving the compos of the product (active principles, excipi stabilisers, flavouring agents, colou etc.); the name, address and title of maker (proprietor pharmacist, comp etc.); and an exact indication of the of manufacture, with the part playe the maker (who supplies him and w the work is carried on). He must the method of preparation. If the cess involves a secret process he not wish to divulge, the machinery to meet his wishes and yet co with the law. For raw materials not pearing in the Codex, the method of ing must be given in detail. So must

hnique followed by the manufacturer to ive at the dosage of the active prin- les; the therapeutic indications of the oduct, clinical tests and documents show- the value of the product (reasons which rted work on the product, original re- rch, etc.). The results of experiments in oratory and clinic must be given, as ll as literature published about them. urteen copies of a summary of the dos- r must be sent to members of the omité Technique, giving the formula and owing its novelty. For each variety or ength of the product, four specimens ust be attached to the dossier. For spe- alities containing penicillin, adrenaline, loramine-T, vitamins or arsenobenzene, date limit must be stated. Payment for gistration (a fixed sum of fr. 4,000) is ade to the Treasury. It is not repaid if e application is rejected.

embership of Technical Committee

The *Comité Technique des Specialités* mprises two members of the Academy of edicine, two professors of the faculty of edicine, two professors of the faculty of harmacy, three doctors, one of them a octor in a Paris hospital, three pharma- ists, one of them a retail chemist (doc- rs and chemists both nominated by their rofessional organisations and approved by e Minister), and a representative of the Ministry. The list of specialities to be sub- itted to the *Comité Technique* is drawn p by the Minister of Health. At the *Ser- ice Central de la Pharmacie* there is a egister in which are entered on arrival of e dossier and specimens: (a) A number;) date of deposit of the dossier, etc.; (c) ame and address of the applicant; (d) ormula; and (e) the name of the product. he number serves provisionally to iden- fy the product until the Codex commis- on has given it a common name. The st of registration numbers is sent at least nce every three months to professional nedical and pharmaceutical organisations. Experts who carry out the assays are selec- ed by a commission comprising members f the academy of medicine, and of asso- iations of pharmacy in Paris and the pro- inces nominated by the Minister. The nanufacturer asks the commission for one r more experts to carry out tests. The xperts are pledged to professional secrecy. hey carry out the experiments in their aboratories. The *Comité* conducts a secret allot of its members to decide whether he proprietary shall be admitted, and a aajority of one only is necessary. In the case of equal votes being cast, the case is decided in favour of the manufacturer. The *Comité* may postpone judgment for further investigation. If there are discrepancies the maker can remedy them and apply again for a visa.

The *Comité Technique* can also express different opinions for the same product according to whether it has a made-up or common name. For a speciality under a common name, a favourable decision cannot be withheld (even if it is an imitation of another speciality) provided it does not endanger the health or morals of the public). The *Comité Technique* gives a favourable decision to specialities possessing a quality of newness, either being an advance in technique or making possible a new method of administration. Before giving a favourable decision the *Comité Technique* must be assured that:—

(a) The product does not endanger the health or morals of the public, either by its make-up or advertising.

(b) It is not lacking in therapeutic activity.

(c) Its formula is correct.

(d) The method of manufacture is not likely to harm the product.

(e) The analysis (if there is one) corresponds with the formula.

"Old" specialities (those on sale before September 11, 1941, are examined in a liberal manner, and no more is asked of them than that they are correct.

When the granting of a visa has been approved by the Minister, the *Service Central* informs the manufacturer, and gives him a number which is reproduced on all labels. If the decision is unfavourable, a period of a fortnight is allowed for the maker to bring further evidence for another examination. The *Comité Technique* publishes at irregular intervals a list of specialities receiving visas. A complete list, with the composition, is issued each year.

Under a visa the product is guaranteed against imitation for six years. At the end of that period the product may be the object of a visa concession. In that case it may only be retailed under its common or scientific name and the name of trade-mark of the manufacturer.

"Previous registration of formulas," an "establishment of the previous nature of the speciality," can be made by registered pharmacists. Registration is made without previous examination. It does not constitute any guarantee of novelty. It has no further significance if within the next six months no application for a visa is made.

THE PROPERTIES AND USES OF BENTONITE

By R. E. M. Davies, B.Pharm., Ph.C.

BENTONITE is defined in the British Pharmaceutical Codex as "a native, colloidal, hydrated aluminium silicate, the principal constituent being montmorillonite, Al_2O_3, $4SiO_2$, H_2O." The term bentonite, however, embraces a wide range of materials of varying characteristics and a sub-division into true bentonite and the sub- or meta-bentonites, depending on whether the alumina content is resistant to or is attacked by sulphuric acid, has been found convenient. Chemically similar to kaolin and China clay, bentonite is thought to owe its origin to the weathering of volcanic ash and derives its name from the locality in which it was first mined, near Fort Benton, in Wyoming, America, where it was noticed by the early pioneers who used the exposed surface deposits, or "soap-holes" for washing purposes.

Natural Occurrence

The material occurs naturally in stratified layers of varying thicknesses and is mined in soapy lumps. These are steam dried and the lumps ground to a powder which is finally sifted. Although bentonite occurs in various scattered localities throughout the world including, South Africa, France, China, Mexico, Japan, the Ukraine, Canada and Germany, it was mined and exported on a commercial scale only in America (where the best Wyoming bentonite is a generally accepted standard) until comparitively recently, when supplies from the British Empire sources have become available.

In colour, the powder varies from brown to cream, sometimes with a greenish tinge and is composed of particles of colloidal or nearly colloidal dimensions, the shape of which is thought to be comparable with that of mica. On analysis, bentonite is shown to contain approximately 60 per cent. silica, 20 per cent. alumina, 2 to 3 per cent. magnesia, 3 per cent. ferric oxide and small quantities of calcium, sodium, potassium, sulphur, titanium and ferrous iron. It loses 5 to 8 per cent. of its weight on drying. The Codex stipulates an arsenic limit of not more than 10 parts per million. Its dispersions in water are alkaline in reaction (*p*H 9 to 10). Uninteresting chemically, bentonite owes its importance entirely to its unique physical properties. It has a great affinity for water, the dry clay absorbing five to six times its own weight of water and s ing, in the process, to twelve to fif times its dry bulk. This is evidently to the film of water between the innu able minute flakes of which the cla composed, the large surfaces of which capable of enormously increasing the e of capillary attraction.[1]

Sols and Gels

Depending on the grade of bent used and the concentration employe wide range of products, varying from sols to solid gels may be formulated. cause of variation in different sample bentonite, however, it is difficult to down a precise relationship between type of product obtained and a parti concentration. I have, for instance, duced a firm gel at a 10 per cent. con tration using one sample of bentonite another sample at the same concentra has yielded a pourable preparation. following notes, however, may serve rough working guide.

1 per cent. gives a thin colloidal pension.

5 per cent. yields a useful suspen vehicle.

10 to 15 per cent. gives a fairly paste.

20 per cent. and upwards yields gels.

Recommended Method of Preparatio

The method of preparation usually re mended is to sprinkle the bentonite o surface of the water, allowing each po to hydrate before adding the next. I final product is to contain glycerin or other non-ionising liquid, then the pr ation time may be considerably reduce first triturating the clay with this li and finally making up to volume wit water. For convenience, it is some desirable to have a stock dispersion prepared. A 5 per cent. concentrati usually advocated for this purpose. tonite gels are usually grey, fawn or c in colour, are stable, quiver when tou and exhibit true thixotropy, that is, undergo a reversible gel-sol transform on the application of stress with no ch in temperature or volume. Although poorer grades of bentonite are incline be somewhat gritty, the best samples duce gels which are smooth and emo

which have been compared in appear-
e and texture to hydrous wool fat.
entonite is incompatible with acids,
rogen bentonite being precipitated.
suspending power is also lessened by
presence in solution of electrolytes. An
resting effect is produced by the addi-
of a small proportion of magnesium
le which thickens the product and in-
ses its suspending power. A sample
entonite which, when mixed with water
a 10 per cent. concentration pro-
ed a pourable paste, yielded a solid
when 1 per cent. of light magnesium
le was incorporated. It is seen, there-
, that one of the most important phar-
ceutical applications of bentonite is as a
bending agent. The United States
rmacopœia XIII recognises 2.5 per
t. bentonite as the suspending agent for
lk mixture and the N.F. VII made offi-
l a 5 per cent. suspension of the clay
led magma of bentonite. Fantus and
niewicz,[2] in developing a series of im-
oved calamine lotions, found that the
xture mentioned below showed practic-
y no sedimentation after standing for
nety-six hours.

Calamine	0.8 gm.
Zinc oxide	0.8 gm.
Bentonite	0.3 gm.
Water	to 10.0 c.c.s.

odman[3] suggested the following for-
la,

Zinc oxide	160
Magma of bentonite	400
Water	to 1,000

de of iron being added to give the pink
our. The suspending power of benton-
has also been utilised in the preparation
barium creams.

es of Bentonite Gels

The gels themselves may be used as fat-
e ointment bases and, as such, have
oved of particular value in the formula-
n of preparations for the treatment of
ne. Glycerin may be included as a hu-
ectant, and to prevent water loss, storage
ust be in air-tight containers. No cases
skin irritation have been reported fol-
ving the use of bentonite bases which
ve also been used to dispense ichtham-
ol, ammoniated mecury, salicylic acid,
orcinol, sulphur, balsam of Peru, gen-
n violet and many other medicaments.
e following formula has been cited for
washable ointment base in which ben-
nite is present as a stabilising colloid and
give the preparation smoothness.[4]

Glyceryl monostearate	10
Glycerin	25
Bentonite	2
Distilled water	63

Using this as a base, stable standard strength ointments have been made of boric acid, tannic acid, phenol, potassium iodide and balsam of Peru.[5] Similar bases can be readily formulated using emulsifying wax, B.P. Even plain aqueous dispersions of bentonite have been found to grow mould on storage and a suitable preservative should, therefore, be included in all formulas.

With suitable adjustments in their proportions, admixtures of bentonite gels and wool fat may be made to produce smooth emollient pastes, thus,

Bentonite	20
Glycerin	15
Wool fat	20
Water	to 100

Need for Sterilisation

Because of its earthy nature and the consequent risk of tetanus spores being present in the material, all samples of bentonite intended for dermatological use should be previously sterilised by heating in a hot-air oven at 150° C. for one hour. In America, bentonite has been used in formulating various skin protective preparations. A typical example, suggested by Goodman[6] is as follows:—

Bentonite	25
Zinc oxide	25
Cottonseed oil	25
Hydrogenated cottonseed oil	25

This base has also been advocated for use as a vehicle for sulphonamide applications.[7] It has been suggested that medicated bentonite bases may be found useful in the treatment of scalp infections.[8] They have the advantages of not spreading to the hair when applied to the scalp and of being readily removed by the application of water. Another point worthy of note is that bentonite bases, unlike fatty bases, undergo no change in consistency with temperature changes.

Bentonite possesses valuable detergent properties because its particles adsorb positively charged carbon and hold it in suspension. Various combinations of bentonite and the synthetic detergents, therefore, seem worthy of investigation in this connection. Like a number of other hydrophillic colloids, bentonite alone is not suitable for preparing emulsified bases. In conjunction with an emulsifying agent,

however, it exerts a pronounced stabilising effect. By including 4 per cent. of bentonite in a Lanette wax cream base, Axon[9] noted that after forty minutes autoclaving at 120° C. the reduction in *p*H value was only about 0.5 and no separation of the oils occurred.

Other Uses of Bentonite

Bentonite has been used as a diluent for potent drugs; and as a carrier of substances like vitamins; as a dusting powder to absorb perspiration and other body secretions; as a deodorant; and as a base for depilatories, lipsticks and rouges. Many facial beauty clays consist of alkali bentonites made to a paste with glycerin.

Outside pharmacy and cosmetics, bentonite is used as an emulsifying agent for asphalts, pitches and bitumens and as a binder, adsorbent, extender and emulsifier in paints and pigments. It is used in the refining and compounding of petroleum products, in the manufacture of polishes, agricultural sprays and firebricks. It h its place also in the ceramic and rubb industries and is of great value in so manufacture. Honey, wines, vinegar a other products containing impurities a readily clarified by admixture with be tonite and it is also used in the de-inki of old newspapers. The U.S. Geologi Survey, has rightly stated "Bentonite h the greatest efficiency for adsorption t nature seems ever to have devised."

1. Wil-kinite leaflet, Bush Beach & Gent, I
2. Fantus, B. and Dyniewicz, "Journal of American Pharmaceutical Association," 1 27, No. 10.
3. Goodman, H., Urol.cutan.Rev., 1945, 49,
4. Cox, C. L. and Goedrich, P., "Journal of American Pharmaceutical Association," 1 1, 210.
5. Dexter, L. A., "Canadian Pharmaceu Journal," 1948, April 1, p. 316.
6. Goodman, H., New York State Pharmaco 1944, 19.31.
7. Baker, W. B., "Drug and Cosmetic In try," 1944, March, p. 354.
8. Goodman, H., *ibid.*, 1944, June, 705.
9. Axon, A., "Pharmaceutical Journal," 157, 377.

VETERINARY ABSTRACTS

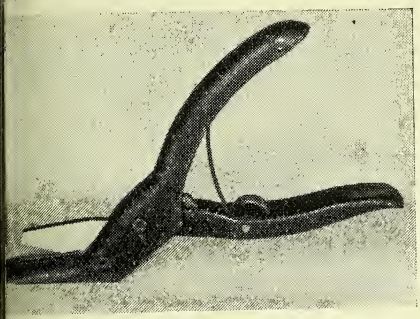
Cobalt Deficiency Investigated. — Osborne and colleagues ("Veterinary Record," 1949, **62**, 72-3) have investigated "pining" in lambs in Herefordshire associated with a low level of cobalt in the soil. They found that the administration every fortnight of 14 mgm. cobalt (as sulphate) produced a weight increase significantly greater than that which occurred in a control group of lambs.

Goitre in Animals.—A review of the prevalence of goitre in animals of various kinds and in many areas throughout the world makes up Facts 381-429 in "Iodine Facts." "Hairless pig malady" (fœtal and maternal athyrosis) was first systematically described in 1917-19 after work at the Montan Experiment Station, U.S.A. At that time deaths from the disease amounted to one million pigs annually. The symptoms are those of myxœdema, the most striking being the absence of hair. Hooves are thin-walled, short, brittle and undeveloped. The malady appears to be occasioned by low iodine assimilation by either intestine or thyroid when the rations of the affected pig or sow have high protein levels and low laxative effects. Another animal especially susceptible to goitre is the goat. It goes then by the name of big-neck. In Bavaria it was found that the areas in which big-neck was prevalent coincided with the human goitre areas.

Toxicity of Antrycide.—Garner, of Veterinary Research Laboratory, V Northern Nigeria ("Veterinary Reco 1950, 62, 314) is of the opinion that large doses of Antrycide necessary to *Trypanosoma vivax* infections in cattle likely to produce severe reactions deaths. Salivation, spasm of the phragm, repeated defæcation and py were noticed in ten young cattle ex mentally infected with the organism, hours after they had received Antry dimethozulphate in doses of 5 mgm. kilo live weight. The same dose adm tered to healthy horses produced trembling, salivation, diaphragm spasm perspiration, but no raised tempera Blood sugar fell. Experiments on g pigs, a rat, a rabbit and a calf were conducted, and the total evidence po to the fact that the drug either stimu the parasympathetic system or inhibite sympathetic nervous system, and th had a curare-like action in producing cular paralysis. Three of a numb infected cattle were given a second of the drug at a rate of 7.5 mgm. pe died, after showing toxic symptoms. mortem findings were those of chroni panosomiasis and acute gastro-ent Two further cattle that received onl dose displayed toxic symptoms and h be destroyed. Post-mortem findings similar.

EQUIPMENT AND MACHINERY

Cutter for Tensional Steel Strapping.—ecially designed for its purpose, the Ger-d strapping cutter, manufactured by rrard Industries, Ltd., Harlequin enue, Great West Road, Brentford, Mid-



esex, has a tapered blade that slips easily der the strapping and is capable of vering a band up to ¾ in. in width. It corporates a slot for cutting wire up to 3 gauge.

Interchangeable-letter Signs. — Tickets Co., Silver Street, Leicester, are makers f price tickets with interchangeable figures nd signboards with interchangeable letters. oth are available in a range of sizes.

"Instantaneous Intercommunication." —Intercommunicating sets ("just switch talk—release to listen") operated by andard U.2 torch batteries are available om Two-way Talkie, Ltd., Neltic House, harteris Road, London, N.4.

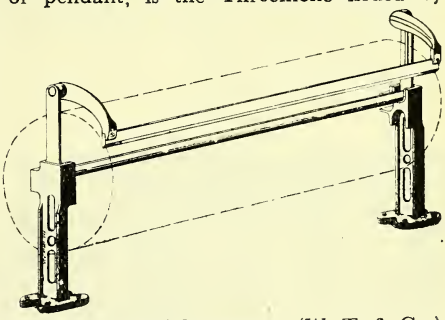
Telephone Cords Under Control.—The urling and knotting that commonly occur the cords of telephone receivers is elim-nated by the Telegarde Telephone Cord ontroller (in various colours) made by rank Crossley, Hunters Lane, Rochdale, ancs.

"Buvanised" Air.—A system of simul-aneously deodorising and sterilising air "buvanisation") by ultra-violet light has een developed by Barber Electrical Ser-ices, Ltd., Bournville, Birmingham, 30. uvan units are of special value in factories r laboratories in which biological mater-als are handled; in conditions not amend-ble to sufficient ventilation; underground ffices and shops' departments, etc.; in hemical and pharmaceutical manufacture, ospitals, etc.

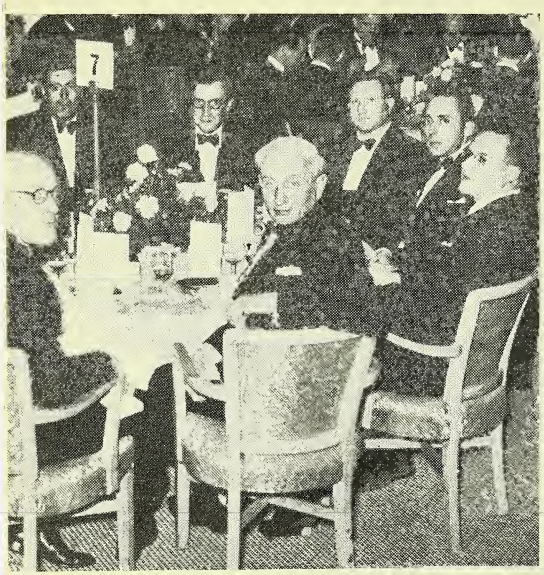
Automatic Temperature Control.—An advance that secures greater accuracy in automatic temperature control systems is incorporated in the Tem-con system devised by P.A.M., Ltd., Guildford, Surrey. The system virtually eliminates the arcing between the electrical contacts that, by their unequal expansion for the basis of the method, and in that way avoids the wear and the increased electrical resistance that are commonly encountered. It is applicable to the control of any form of heating (at present up to 600°C.) or refrigeration process.

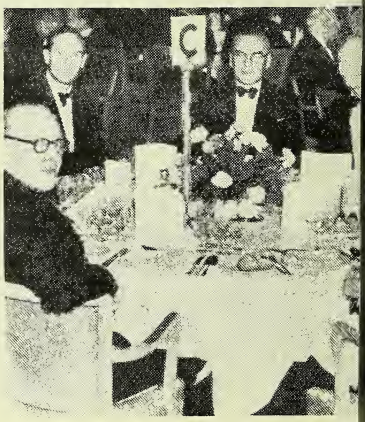
High-speed Tape "Dispenser". — Described as the only machine of its kind delivering pre-determined lengths of self-adhesive tape with speed and precision, the Jobay high-speed automatic dispenser for cellulose and paper self-adhesive tapes delivers lengths from 1¼ in. in predetermined intervals up to 13 in. "or through free motion to infinity." The sole concessionaires for the Jobay automatic dispenser in the United Kingdom (and for export except to the United States) are John Gosheron & Co., Ltd., Gayford Road, London, W.12.

Roll Holders for Counter Wrappings.—An all-metal counter roll for delivering wrapping-paper cut to desired size, and which may be fixed either as stand, bracket or pendant, is the Threeinone issued by

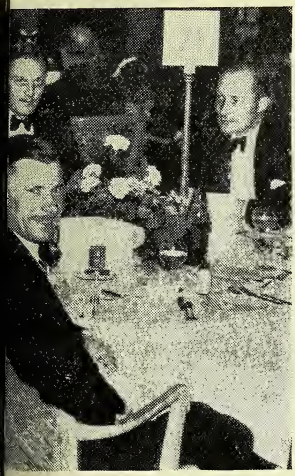


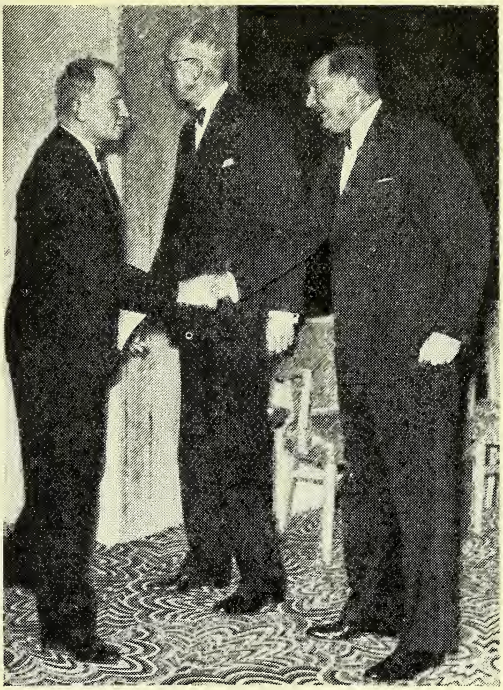
Allied Paper Merchants (W. T. & Co.), Ltd., 46 Mansell Street, London, E.1. The apparatus can be supplied in any required width. The illustration shows the apparatus in use as a stand.—A three-in-one roll-holder instantly convertible from stand-type to bracket or pendant is also offered by W.B.C. (Packings), Ltd., 195 Hammersmith Road, London, W.6. In this machine, the W.B.C., the blade is automatically adjusted to the diminishing roll.

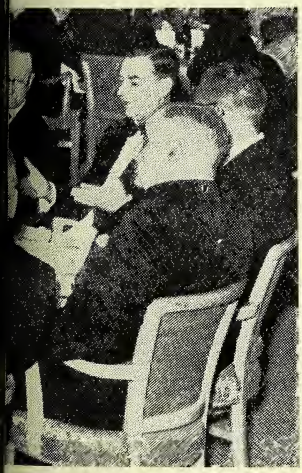




GUESTS AT THE CHEMICAL MANUFACTURERS' DINNER



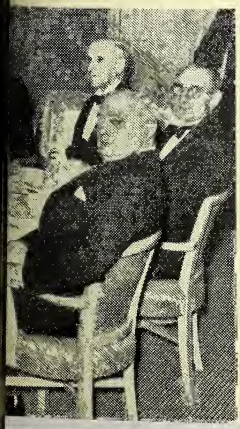




Groups at annual dinner

of Association of British

Chemical Manufacturers



IPECACUANHA FROM *CEPHAELIS ACUMINAT*

The 1948 edition of the B.P. included for the first time ipecacuanha root from *Cepha acuminata*, Karsten, "known in commerce as Cartagena, Nicaragua or Panama Ipecacuanh Sources of supply are Colombia in South America, and Nicaragua and Costa Rica in Cen America.

PRODUCTION of ipecacuanha in the South American Republic of Colombia has increased greatly during the past three or four years, compared with pre-war output. Only a small fraction of total output is consumed in Colombia, partly in the manufacture of medicines and partly in the preparation of domestic remedies. The bulk of production is taken by the United Kingdom, France, the United States and other countries.

COSTA RICA

Shaded areas indicate approximately the districts in which ipecacuanha is found in Costa Rica.

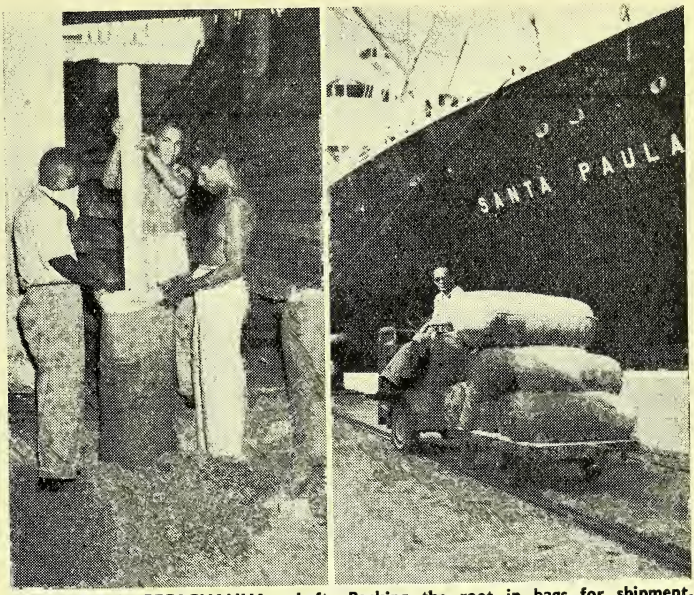
Collection

Ipecacuanha is found in mountainous and humid districts, and is gathered more or less all the year round, but principally in the winter, when it is much easier to extract from the ground. (In Colombia, winter is understood to be the rainy season which extends generally from about February to April.) When collected i green; it is left to dry for some three four days during which time it shri and loses up to 30 per cent. in wei Further weight loss occurs but to a m smaller degree. The root is then pac in bags contain from about 90-100 and is shipped fr Barranquilla. It sometimes shipped fr Cartagena, from wh port it gets its alterna descriptive name. T exports of ipecacua in 1949 from Col bia were 29,020 k (642 bags) of wh 19,710 kilos were ported from the for port. In 1949 des ations of exports wer follows :— New Y 14,263 kilos; Le Ha 7,653 kilos; Hamb 729 kilos; Dutch p 314 kilos; and Lond 5,804 kilos.

On the north border of Costa I ipecacuanha gr wild, particularly the San Juan r (see map) where h temperatures humidity are fou In this region wh the plant grows soil is moist but drained; it will grow in swampy districts. The climate ditions with the hazards of snakes malaria-carrying mosquitoes mili against cultivation; settlers are few number. For this reason, most of the i acuanha root exploited in Costa Ric from wild plants. One farmer only attempted to establish plantations but sults are not yet known as it takes s four years for the plants to produce able root growth.

The collection of the root and prep tion for market is simple. It is extra from the ground, collected in sacks

nsported to the ers or to tanks washing. Dry- the root in the takes about a ek, during which e the root is not owed to lie on ground as the nperature is high. e ipecacuanha is en transported in all boats either ross the San Juan er to Nicaragua downstream and uthwards along e coast to Port mon, the main rt of shipment. he very small antities used by e incipient Costa ican chemical in- ustry are carried y mules as far as Villa Quesada, and rom there supplies o by truck to San ose and towns in other parts of the country.



COLOMBIAN IPECACUANHA.—Left: Packing the root in bags for shipment. Right: The bags at port in course of shipment.

Estimates of Output

Since local consumption is small it ight be expected that official statistics or exports would give a fairly accurate stimate of Costa Rican output. However, it is thought that the quantity muggled across the San Juan, to be exported from Nicaragua, is greater than hat exported directly from Port Limon.

Exports From Costa Rica

Year	Kilos	$ U.S.
1937	17,029	10,719
1938	10,177	15,186
1939	14,039	15,409
1940	25,336	32,194
1941	43,147	60,538
1942	10,402	17,976
1943	9,367	33,309
1944	6,822	22,813
1945	6,486	29,830
1946	14,843	104,778
1947	12,540	85,317
1948	63,084	286,179
1949	84,916	25,509

As a result of the uncontrolled exploitation of wild ipecacuanha and the lack of plantations or areas under cultivation, the country's resources are being ruthlessly destroyed. The government, however, is aware of the danger and latterly several laws have been enacted providing for the rational exploitation of the root.

Little is known of Nicaraguan produce: official statistics show that in 1948 ipecacuanha root was exported with a total of 24,877 kilos, valued at $U.S. 212,214, compared with 44,653 kilos ($U.S. 411,990) in 1947 and 72,372 kilos ($U.S. 758,094) in 1946. From these figures it appears that trade is declining.

Of the three types, Costa Rican material is highest in total alkaloids—it usually exceeds 3 per cent. and contains from 1.2-1.24 per cent. of non-phenolic alkaloids. Nicaraguan root tests about 2.70-2.80 per cent. total alkaloids but is comparatively low in non-phenolic ranging from 0.75 to 1 per cent. Colombian ipecacuanha contains from 2.25-2.40 per cent. total alkaloids and from 1.20-1.26 per cent. non-phenolic.

We are indebted to Rosing Brothers & Co., Ltd., 95 Gresham Street, London, E.C.2., for providing information on Colombian (Cartagena) root, and for photographs, and to the Ministry of Agriculture, San Jose, Costa Rica, from whom information was obtained on Costa Rican root.

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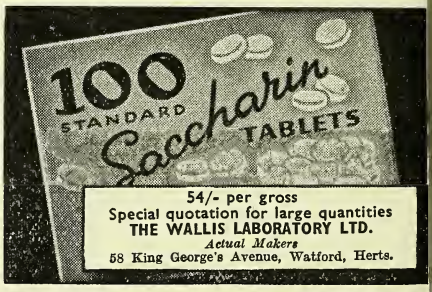

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VOL. CLIV OCTOBER 21, 1950 No. 3687

Studies of Foot-and-mouth Disease

For the quantitive study of bovine strains of foot-and-mouth disease virus methods of titration using cattle have been evolved by Henderson (Agricultural Research Council, Report Series No. 8). The most successful method consists of the simultaneous inoculation of the bovine tongue with different dilutions of the virus suspension. The method involves simultaneous inoculation of the tongues of two cattle with four dilutions, using five inoculation sites on each tongue for each dilution. The end-point is expressed as the theoretical dilution that should give an equal number of positive and negative results when inoculated into the same host species under the same conditions. Brooksby (A.R.C. Report Series No. 9), who has studied the detection and measurement of antibodies to the virus of foot-and-mouth disease, finds the best method of assaying antibody titre to be the bovine neutralisation test. The test depends on neutralising virus by the antibody *in vitro,* and determining the concentration of serum that can neutralise the virus, by multiple inoculation of the bovine tongue. One advantage of the test is that it enables a result to be obtained very speedily (twenty-four hours). Convalescent serum (50 mils per cwt.) gave a "fair measure" of protection in conditions of exposure to infections more severe than are generally met with. A dose of 150 mils per cwt. afforded complete protection; 17 mils per cwt. was without effect. Copies of the reports may be obtained from H.M. Stationery Office, Kingsway, London, W.C.2, price 2s. 6d., and 3s. 6d. respectively.

Antidote to Barbiturates.

Discussing the treatment of choice in barbiturate poisoning, Jones, Dooley & Murphy ("Journal of the American Medical Association," 143.**10**.884) favour pentylenetetrazole (Metrazol) as a relatively safe antidote for use in large quantities. It may be used by any physician anywhere for immediate relief until the patient can be transported safely into hospital, where further treatment can be given. The authors make recommendations against treatment by lavage (unless the patient is conscious) and against too vigorous use of intravenous fluid therapy. They criticise the present distribution of barbiturate drugs in the United States, and recommend more vigorous enforcement of the laws restricting its supply.

Old Synonyms

On reading an unfamiliar synonym recently, my thoughts turned to the subject of obsolete or obsolescent terms, the origin of many of which is obscure. Personal names have often become attached to favourite formulas: this is very noticeable among pills, where Lady Hesketh and other worthies of past generations are commemorated in titles. An examination question might be based on the difference between Griffith's mixture and Heberden's ink. The synonyms for those formulas are derived from physicians well known in their day; but who was the Moore of Moore's ointment? Such titles as Lisbon diet drink, fiddle gum and nothing are difficult to associate with their respective substances: the last named (for which I am indebted to your Dictionary of Synonyms) is or was used for mel boracis. The arbitrary nature of many such terms becomes clearer when some are applied to more than one article or preparation. Dr. Butler's ale is a case in point. Cerevisia Butleri was, in Quincy's Dispensatory (1718), a diuretic and perhaps slightly laxative galenical made by steeping seven kinds of herbs in new ale while fermentation proceeded. But another ale attributed to a Dr. Butler had senna as its principal ingredient, and was purgative. Possibly two Dr. Butlers are involved. The ale described by Quincy was, he stated, "made and sold by most Publick Houses in Town." Some of those inns bore the sign "Dr. Butler's Head," and two licensed houses in the City of London are said to have displayed it as late as 1893.-*Xrayser*

SCIENCE SESSIONS

[*Continued from* THE CHEMIST AND DRUGGIST, *October 14, p. 450*]

The next two papers were taken together. They were:—

Purgatives Based on Anthracene II.—Senna Pod and Its Preparations

J. W. FAIRBAIRN and I. MICHAELS

[ABSTRACT]

A TECHNIQUE is described for preparing an infusion of senna pod (whole and in coarse and fine powder) containing all the active glycosides. Details are given of a method for estimating the glycosides colorimetrically, which is found to be accurate to within ± 4 per cent. A high degree of correlation is shown to exist between glycosidal content and biological activity, indicating that chemical assay is a reliable method for evaluation of senna pod. It is recommended that, since other ingredients, such as liquorice, may interfere with the chemical assay process, the bioassay should be used for estimating the activity of senna pod preparations of which the exact composition is not known.

Purgatives Based on Anthracene III.—Galenical Preparations of Senna Pod

J. W. FAIRBAIRN and I. MICHAELS

[ABSTRACT]

THE glycosidal content (as sennosides A+B) of a number of commercial samples of senna pod has been determined by chemical assay, and it is shown that the usual criteria (appearance and water-soluble extractive) are not sufficiently reliable as methods of evaluation. Alexandrian pod (*Cassia acutifolia*, Delille) is shown to contain a higher proportion of glycosides and water-soluble extractive than Tinnevelly (*C. angustifolia*, Vahl). The glycosidal content of a number of commercial samples of liquid extract of senna, B.P., has been determined; the extracts are found to contain not more than one-tenth of the activity of the pod. Samples of concentrated infusion of senna, B.P., contained not more than one-sixth of the theoretical glycosidal content. The low values are traced in both instances, to incomplete extraction, loss of concentration and deterioration during storage. Certain non official preparations of senna pod hav been assayed biologically and their glyco sidal content calculated. The proportio of the theoretical activity is found to b higher than that in official preparation Approximately three-quarters of the activ principles of the pod are found extracte in a simple (1.2 per cent.) infusion. Fres infusion of senna B.P.C. (drug: menstruun ratio 1:10) is found to extract only abou half of the activity. The B.P. extractio processes have been investigated, and th general percolation process is found to b the most efficient, about three-quarters o the pod's activity being extracted in drug percolate ratio 1:6. The effect o heat on the glycosidal content of aqueou percolates of senna pod has been studied Between 50° and 60°C. there was foun a loss of one-third to one-fifth of the initia activity after eight hours' heating. No los in activity took place during concentratio of a percolate at a temperature not ex ceeding 40°C. for ten hours. The activ principles are found to be almost com pletely soluble in 70 per cent. acetone 70 per cent. ethyl alcohol, and 70 pe cent. methyl alcohol; less solid matter i extracted by those solvents than by water Extracts prepared by percolation wit those solvents and evaporation of the percolate below 40°C. contained all the activity of the pod. The advisability of usin those solvents for the preparation of a extract of senna is discussed.

[*Acknowledgments are made to the directors of Westminster Laboratories, Ltd., and to Messrs. T. C. Lou and M. R. I. Saleh.*]

DISCUSSION

PROFESSOR H. BRINDLE, Manchester, asked whether spray-drying had been tried. He thought that it would give completely satisfactory results.

MR. T. D. WHITTET, London, asked whether the authors had tried propylene glycol as a solvent. He had found a number of substances unstable in water to be stable when dissolved in that compound.

DR. D. C. GARRATT, London, asked whether the accuracy of ±4 per cent. in the senna evaluation was based on a correlation with the biological assay?

Mr. C. J. Eastland, London, said that e results confirmed those given by Collier d others to the 1947 Conference meeting Torquay. Had the authors found a ethod of overcoming the difficulty that gh results were obtained from old prerations? The breakdown over a period time might be different from that at a gh temperature.

Mr. H. Deane said that the position of nna galenicals was unsatisfactory. The re glycosides were not available.

Professor Brindle added that it should possible to extract senna pods with ater, spray-dry the solution, and comess the product into tablets equivalent to y 10, 20, 30 pods.

Mr. G. R. A. Short, Edgware, said that link had been mentioned between the pearance of the pods and their activity. anufacturing pods were said to be good. hey were broken, however, but of a dark lour. The degree of ripeness might have significant effect on the pods' activity. He as surprised by the long time of evaporaon, and suggested the use of a spray-ier or a climbing film evaporator.

Dr. G. H. Macmorran, Edinburgh, sugsted that adjusting the solution to *p*H3 ight hydrolyse the glycosides.

Dr. F. J. Dyer, London, was pleased at pharmacognosists were putting their bject on the map by using pharmacogical methods. Had the authors tried per cent. alcohol as a menstruum, as d been used in the extraction of digilis glycosides?

Dr. Michaels, replying, told Professor indle that spray drying was not available, d, moreover, that they had read that the sulting extracts were hygroscopic. To r. Whittet he said that the boiling point propylene glycol was too high for use th thermolabile compounds. He told Dr. arratt that the assays had been carried ut often on different days, and Mr. Short at they had not been able to obtain mples of senna in varying degrees of peness, but they would keep the point mind. Although the time of evaporation as ten hours the temperature had been w and they felt that there was no danger decomposition.

Dr. J. W. Fairbairn told Mr. Eastland at the suggestion that there might be a fferent kind of hydrolysis on storage was orth considering. To Dr. MacMorran he id that the accuracy of the bioassay was ly 15-20 per cent.

Plasma by Kaolin Process

G. R. Milne and G. M. Todd

[Abstract]

A modification of the process for the adsorption of fibrinogen and prothrombin from plasma with kaolin suggested by Maizels as being less likely to produce toxic reactions than material untreated with kaolin has been used. The product has the advantages of being liquid and not requiring reconstitution with sterile water before use, being self indicating for sterility, and stable for reasonable periods when stored at room temperature. The main disadvantages are a lowered protein content and the fact that during transport there may be some precipitation due to breakdown of the lipoid-globulin complex. If the kaolin process is to be considered a British Pharmaceutical Codex approved method, the minimal B.P.C. standard for protein content of the fluid should be revised.

[*From the Glasgow and West of Scotland Blood Transfusion Service.*]

The paper was read by Mr. Todd.

Discussion

Mr. G. Sykes, Nottingham, expressed surprise and even alarm at the recorded loss of protein after passing through the sterilising pads. He found it difficult to believe that so much had been adsorbed.

Mr. Oliver, Sunderland, asked for information on the ratio of globulins to albumin. Since, he said, the albumin was more readily adsorbed, the proportion of globulins left became important.

Mr. G. R. Milne, supplementing information given in the paper, mentioned that the light kaolin of the Pharmacopœia had been found to vary in adsorptive power according to sample. To Mr. Sykes he pointed out that the area of filter pad to amount of fluid was highly important. The use of a small pad had been found necessary in order to avoid loss by adsorption. The percentage of asbestos in the pad was also important: recently there had been an improvement in quality.

Mr. L. G. M. Todd, winding up, said that the size of pad used had been 20 cm. sq. No work had been done on the globulin/albumin ratio, but the point had been put down for investigation.

(*To be concluded*)

Potassium Discovered in Britain

Valuable deposits of potassium chloride have been found in Eskdale, North Riding of Yorkshire.

INQUESTS

Antihistamine Death.—At an inquest at St. Pancras, London, recently, on a two-year-old boy, it was stated that the child, while playing, gained access to a box of tablets of mepyramine maleate which his mother had had on prescription. The father said that he removed six of the tablets from the mouth of the child, who nevertheless became unconscious shortly afterwards. The child was removed to hospital where he died. A verdict of accidental death was returned.

Another Ferrous Sulphate Death.—At an inquest in Sunderland recently on a one-year-old boy who died after swallowing twenty ferrous sulphate tablets, the coroner advised that containers of the drug should display a warning that the tablets must be kept out of reach of small children and added "Someone erred," he said, "in leaving the tablets where the child could find them but this is mitigated to some extent because the parents were not told of the dangerous nature of the drug by the chemist."

Suffocated by Soother.—A verdict of death from misadventure was returned at Ormskirk, Lancs recently, at an inquest on a four-months-old boy who had been found dead in his cot. The child's father said he saw the child in the cot looking unnaturally pale, and with the rubber ring of the child's dummy protruding from his mouth. He called for assistance, and the child was taken to the Ormskirk County Hospital, but was dead on arrival. A pathologist said that death was due to asphyxia caused by an obstruction of the external air passages by the dummy. The dummy seemed to have a very small ring.

Death Under Anæsthetic. — At an inquest at Bath recently on a twenty-two-year-old woman, who died while undergoing treatment at Forbes Fraser Hospital, Bath, a verdict was returned of death from shock while under chloroform administered during an operation for a laceration. A doctor who had attended the woman said that his patient had a laceration necessitating two or three stitches and he administered chloroform as an anæsthetic. After putting in one stitch he noticed the patient's respiration was embarrassed. Artificial respiration was given but the patient died. A pathologist said that the woman was healthy apart from a poor heart and a fatty liver and in his opinion death was due to heart failure.

TRADE REPORT

ADRENALINE.—B.P. is quoted from 3s. 3s. 6d. per gm. for natural and 2s. 2s. 6d. for synthetic; racemic, 2s. per gr

AMPHETAMINE. — Quotations for BAS and SULPHATE are from 72s. 6d. to 76s. p lb. *d*-AMPHETAMINE is 26s. per oz.

CHLORAL HYDRATE. — Current rates p lb. for the home trade are: 1-cwt. lot 4s.; 56-lb., 4s. 2d.; 28-lb., 4s. 4d.

COD-LIVER OIL.—Medicinal (B.P.) oil i bulk, supplied to wholesale distributors, quoted as follows:—In 45-gall. drums, 12 per gall., plus 30s. charge for loan drums; in 25-gall. drums, 12s. per gal plus 20s. for loaned drum; 5-gall. drum 13s. per gall. (drum included and not r turnable); 1-gall. tins, 13s. 6d.

EUCALYPTUS.—Continues firm and sho on the spot. Australian, 70-75 per cen (B.P.), is nominal at 6s. per lb., spot for shipment, 5s. 9d., c.i.f.; 80-85 pe cent., 6s. 3d. per lb.

GLYCEROPHOSPHATES. — Prices were a vanced on August 1. Rates per lb. fo 28-lb. lots are as follows: ACID, 20 pe cent., B.P.C., 7s. 9d.; CALCIUM, solubl B.P.C., 11s. 6d.; IRON, B.P.C., powde 14s. 6d.; MAGNESIUM, soluble, B.P.C 18s. 6d., and insoluble, 9s. 3d.; MANGA ESE, 25s.; POTASSIUM, 50 per cent., 5s. 4 and 75 per cent., 7s. 4d.; SODIUM, 50 pe cent., 4s., and 75 per cent., 5s. 5d.

MALT EXTRACT.—B.P. quality is quote at 86s. per cwt. in 1-cwt. or 56-lb. re turnable drums; with COD-LIVER OIL (1 per cent. v/v.) the price is 99s. 6d. pe cwt.; carriage paid.

SACCHARIN.—In lots of 1-lb. and ove B.P. powder is quoted at 98s. 4d. per lb. the SODIUM SALT is 79s. 4d. per lb. Price include duty and carriage.

SALOL, B.P.C. — Current quotations fo quantities of 28 lb. to 1 cwt. are from 9s to 9s. 4d. per lb., according to pack. Price for larger quantities are from 7s. 6d. t 8s. per lb.

SODIUM ALGINATE.—Current rates per lb are unchanged as follows: 7-lb. lots 7s. 3d.; 28-lb., 7s.; 1-cwt., 6s. 6d.

SULPHACETAMIDE. — Quotations are i region of 26s. to 30s. per lb. The SODIU derivative is 32s. 6d. to 36s. 6d. per lb.

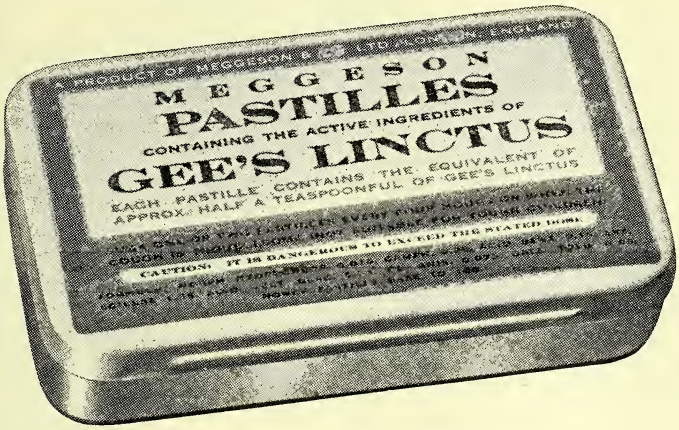
SULPHOCARBOLATES.—SODIUM PHENOLSUL PHONATE, B.P.C. (powder or crystal) i now 3s. 8d. per lb. in 28-lb. lots · 7-lb., 4s per lb. ZINC, B.P.C., is 3s. 4d. per lb (28 lb.); 7-lb., 3s. 8d. per lb.

SULPHONAL.—Makers quote 44s. to 53s per lb. as to quantity.

TEREBENE.—Carboy lots are 3s. 10d. pe lb.; 24 winchesters, 3s. 11½d.; 6 winches ters, 4s. 6d.; and 3 winchesters, 4s. 10d per lb.

HE IMPORTANCE OF A

Name



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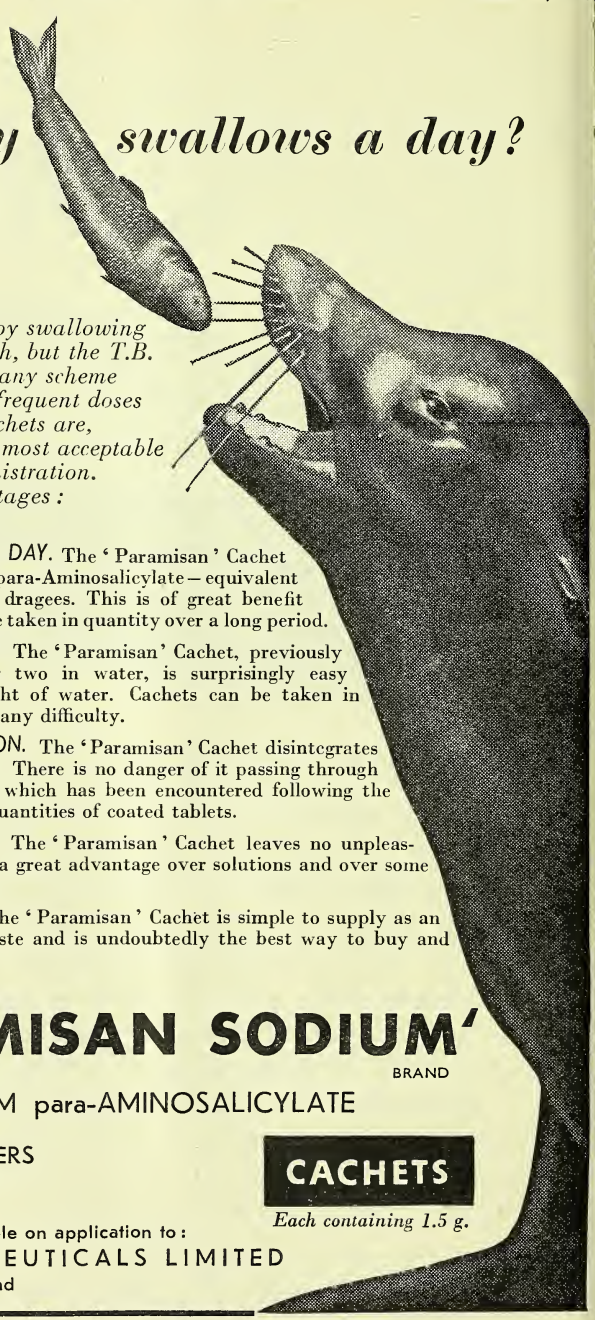

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ACCURATE DOSAGE. The 'Paramisan' Cachet is simple to supply as an accurate dose, avoids waste and is undoubtedly the best way to buy and administer P.A.S.

'PARAMISAN SODIUM'

TRADE MARK BRAND

SODIUM para-AMINOSALICYLATE

PACKED IN CONTAINERS of 100 and 500

CACHETS

Each containing 1.5 g.

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The EVANS service

In step with the development of pharmaceutical science Evans are creating a new headquarters on a thirty-acre site at Speke on the outskirts of Liverpool. Already some seven acres are covered by buildings and progress is being made as rapidly as conditions will permit. Backed by 140 years of experience, The Evans Service is meeting all demands for a comprehensive range of medical supplies.

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META AMINO PHENOL 99/100%

PAS ACID
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in Bulk and Tablet forms

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(Export only)

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Resistance to colds?

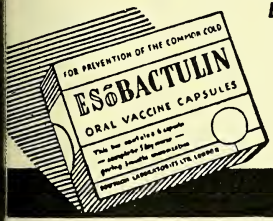
"Yes, this is the time when customers come in for Esobactulin. If we do as well on Esobactulin as we did last year, I shan't complain." The complete course—6 capsules taken over 5 days—is designed to give most people 3 months' immunity from colds.

Retail price 8/3 inc. P. Tax

Supplied through your Wholesaler

33⅓% DISCOUNT—Plus bonus of 13 to the dozen

COUNTER AND WINDOW DISPLAYS NOW WILL BRING RESULTS



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ESOBACTULIN

protection against colds

The

ALLIED DRUG & CHEMICAL CO.

ROBERT STREET, N.W.1

have pleasure in announcing that they will be happy to fill their customers' needs in all

DRUGS
CHEMICALS AND
TABLETS . . .

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BURNSIDE'S EUCALYPTUS OILS

Distilled in Australia by the largest distillers and refiners of Eucalyptus Oils in the world.—W. K. BURNSIDE, PTY., LTD., MELBOURNE, AUSTRALIA

80/85% B.P.	70/75% B.P.
Oil Euc. Dives 40/45%	Piperitone 90/95%
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The most effective and least toxic oxyuricide DIPHENAN B.D.H.

The successful treatment of threadworms demands the willing co-operation of the patient with the doctor. The particular characteristics of tablets of Diphenan B.D.H. encourage maximum adherence to prescribed routine. They are odourless, colourless, tasteless and non-toxic, even to babies.

Bottles of	Trade	Retail
20 tablets	2/8	4/-
100 „	12/-	18/-
500 „	55/6	83/3

THE BRITISH DRUG HOUSES LTD. LONDON N.1

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Best Terms for these TOP proprietaries

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The Veno Drug Co. Ltd. is the authorised selling agent for Phensic Ltd.

The high quality and value of VENO products have withstood the searching test of home medication for many years. You can recommend and sell them to your customers with every confidence and be assured of consistent repeat business yielding an attractive margin of profit.

For BEST TERMS order combined parcels of the VENO products. Combined orders amounting to £3 and upwards from qualified Chemists are subject to 10% for display co-operation in addition to our usual 2½% discount for monthly account.

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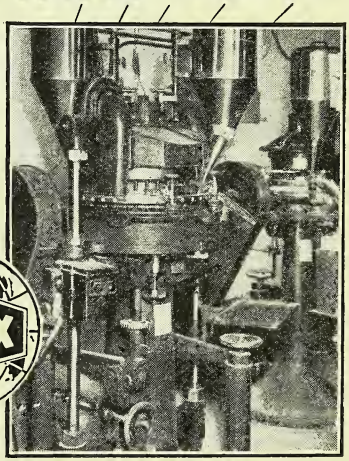
An organisation that offers a combination of outstanding

MANUFACTURING AND PACKAGING FACILITIES



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A sure way to INCREASE YOUR SALES!

Prominently displayed on your counter, this Dispenser will be a constant reminder to your customers . . . . and your sales of 'Milk of Magnesia'* Tablets will increase to new high levels.

Ask us to send one of these attractive sales aids when next you order Phillips' products.

MILK OF MAGNESIA' TABLETS

(REGD.)

THE CHAS. H. PHILLIPS CHEMICAL CO. LTD., 179, ACTON VALE, LONDON, W.3.

* *'Milk of Magnesia' is the trade mark of Phillips' preparation of magnesia.*

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Since 1913, when the Myso Department of Industries w instituted, the industrial deve opment of Mysore has go steadily ahead. Plans in har to develop still further Mysore vast resources will continue record of progress that h earned for Mysore its prou title of "The model state India." One of the most famo of its many products is sand wood oil. Made in the Gover ment sandalwood oil factor strict supervision during eve process guarantees a standa of purity and quality that unequalled.

For further information apply to

TRADE COMMISSIONER FOR MYSORE

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Original Display Idea Increases Chemist's Sales

"I took a look round my shop one day. And I saw something I hadn't really noticed before. My counter and shelves were full of displays that weren't necessary! And it's probably the same in *your* shop, too. We chemists clutter up our shops with displays of day-to-day lines which our customers would ask for anyway — because they don't need a reminder.

Money making idea

That's how I got my idea. I realised that now, more than ever, the public is looking for *quality and value* — and *I* was looking for extra *profit*. So I looked around for a line which my customers needed, but perhaps wouldn't ask for automatically. And I chose Ibcol, the all purpose germicide and disinfectant. Why? Well, Ibcol certainly has first-class quality — leading hospitals wouldn't use it otherwise; as for value, I know from personal experience that Ibcol is so concentrated it goes much further than ordinary fluids, and it's so reasonably priced. It certainly brings me extra profit because it's a heavily advertised line and my customers ask for a bottle as soon as they see the prominent display on my counter."

★ ★ ★ ★

Why not help yourself to this regular *extra* income by giving Ibcol display priority in *your* shop?

HERE IT IS! Ibcol comes in these handy, attractive display cartons containing ½ doz. 2/- economy size or 1 doz. 1/3d. size. For the little space they take up these cartons will yield you handsome, regular profits. If you have supply difficulties, write to Ibbetson, Barking, Essex.

GLANOID

FLAVOURED
ESSENCE OF
RENNET

RASPBERRY, STRAWBERRY,
LEMON, ORANGE,
VANILLA

1 OUNCE BOTTLES
sufficient for 8 pints of Junket

RETAIL
2/3
PER BOTTLE

JUNKET
TABLETS

Each Tablet Sufficient to Junket One Quart of Milk

Packed in Boxes of 12 Tubes

Each Tube contains 16 Tablets

Retail Price 1/3 per tube

JUNKET
POWDER

Packed in Boxes of 12 Tubes

Sufficient in each Tube to Junket 16 Quarts of Milk

Retail Price 1/3 per tube

SUPPLIES AVAILABLE

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Reg'd Brand
MAGNESIA

GUARANTEED B.P. QUALITY

Mag. Carb. Levis. Mag. Carb. Pond.
Mag. Oxide Levis. Mag. Oxide Pond.
Mag. Trisilicate.
Mag. Hydrate. Mist. Mag. Hydrox.

Supplied through all wholesalers by the sole manufacturers:

The WASHINGTON CHEMICAL
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A MEMBER OF THE
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Manchester Office:
15, Pollard St. East, Manchester, 10

"List of Proprietary Medicines advertised direct to the public"

CORRECTION

The Proprietors of

DIUROMIL
and
RALGEX

desire to state that these products were ERRONEOUSLY INCLUDED in the above list by the Ministry of Health who are taking steps to issue a correction to all persons to whom the list was originally sent.

PHARMAX LTD.
The Organ Works, Old Hill,
Chislehurst, Kent.

Richard Daniel & Son LTD

PROPRIETARIES
SUNDRIES DRUGS
TABLETS & PILLS

FOR
CHEMISTS

Manufacturing
Chemists

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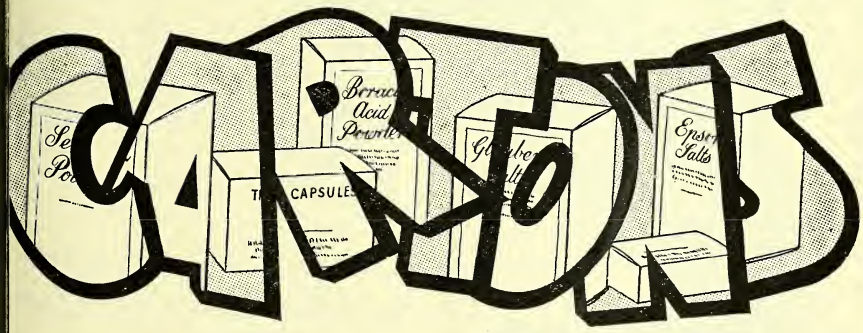

Cartons by
THOMAS WAIDE & SONS LTD.
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ALL BRITISH PRODUCTS

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ALWAYS RELIABLE

NIPAGIN
NIPASOL
NIPASEPT
NIPABUTYL
NIPABENZYL

PRESERVATIVES AND ANTISEPTICS available in both Purified standardised and Technical Grades and as Sodium Compounds

PROGALLIN (A and P) ANTIOXIDANTS available in both Purified-standardised and Technical Grades

PHENOXETOL THE SPECIFIC AGENT against Gram-negative Organisms

Consult the Nipa Laboratories Service Department regarding your manufacturing problems and requirements for Preservatives, Antiseptics and Antioxidants

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Sole Distributors for the United Kingdom
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GOING GREY?

Perfectly Harmless

Keep it DARK with SHADEINE

— *Your SALES are assured if you stock SHADEINE !*

Still the best hair tint. In all natural shades. Stocked by all wholesalers. Trade prices—1 oz. 15/5 per doz., 2 oz. 28/3 per doz. Purchase Tax 100% Retail prices 3/- and 5/6 per bottle respectively.

THE SHADEINE CO.
49 Churchfield Rd. Acton, London, W.3

AN ALL COTTON WOOL PRODUCT OF REPUTE

Consoluxe (Registered)

Patent No. 410702

SUPERFINE QUALITY
ALL WOOL SANITARY TOWELS

LOOPED ENDS
NON-ABSORBENT BACK
WHOLESALE ONLY

ROBERT BAILEY & SON, LTD.
SURGICAL DRESSING MANUFACTURERS
DYSART STREET, GREAT MOOR, STOCKPORT
Phone: GREAT MOOR 3006 Grams: "UNDISPUTED," STOCKPORT

at last "headline"

the new natural shape

CURVED TO FOLLOW THE CONTOUR OF THE HEAD

Spa REGD

No. 33

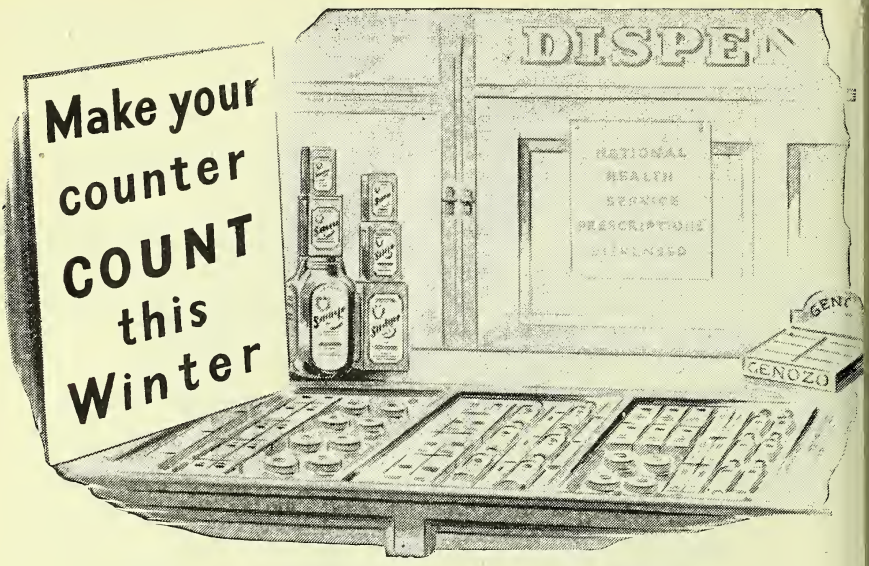
"HEADLINE'S" quicker and better grooming will appeal to every woman . . . each one of the hundred and ten nylon tufts brushes the hair at every stroke.

A dainty, serviceable brush made in clear tints of pink, blue and green. Packed in an elegant window carton to catch the eye.

a luxury brush at

8/11

A BRUSHES LTD. FREEMAN WORKS, CHESHAM, BUCKS.



Place your stock orders NOW for the following counter lines:–

'COGENE' · 'GENASPRIN'

MENTHOL & WINTERGREEN CREAM

WINTERGREEN CREAM · 'SANATOGEN'

T.E.D. COUGH LINCTUS

not forgetting the new

'GENOZO' TOOTH PASTE

Display & Co-operation		Discount
Parcel value	£3 - - - - - - - -	2½%
,, ,,	£5 - - - - - - - -	5%
,, ,,	£10 - - - - - -	10%

GENATOSAN DIVISION

BRITISH CHEMICALS & BIOLOGICALS LTD

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Telephone: Loughborough 2292 *Telegrams:* Genatosan, Loughborough

Addis REGD. BEAUTY BRUSH gets big boost by leading mannequins!

Susan Small's lovely Cherry Marshall is one of the team of leading mannequins sponsoring the Addis Beauty Brush in national magazines

It's lovely, it's efficient, it sells on sight

Great campaign means year-round sales

Yes, London's loveliest mannequins are sponsoring the Addis Beauty Brush in big national magazine advertisements—which your customers are going to see and absorb. They'll be struck by Beauty Brush loveliness, impressed by its efficiency, amazed at its low price—and they'll buy! And demand is going to *stay* up—all the year round! Stock up with the Addis Beauty Brush now! 12/6 retail.

Stock and display the Addis REGD. BEAUTY BRUSH all the year round

Displays of this handsome new blue and white DINNEFORD'S carton is bringing big business to chemists. Nor is this surprising. In your district every Mother with a Baby needs DINNEFORD'S. You can safely recommend DINNEFORD'S for baby's WINDY PAINS and TEETHING UPSETS, to COOL the BLOOD, for IRRITATIONS and RASHES and to keep the BOWELS GENTLY OPEN. Customers like this new carton, with the directions clearly printed in bold type and the screw cap instead of the cork. You've only to show DINNEFORD'S to sell it. So show it now!

IMPORTANT

The new DINNEFORD'S bottle has a compact moulded cap instead of a cork. As a result we cannot repack your present stock in the new carton. We therefore ask your co-operation in selling existing stocks before introducing the new pack.

Orders and enquiries should be sent to the sole distributors: J. C. ENO LTD., WATFORD, HERTS. (WATFORD 7761).

Agents for Scotland:
Donald Macaulay Ltd.,
22, King Street, Glasgow, C.1.

Agents for Northern Ireland:
Robert Mayrs & Co. Ltd.,
54, Victoria Street, Belfast.

The word "DINNEFORD'S" is the registered trade mark of the Dinneford Company Limited.

The convalescent –
The neurasthenic –
The overworked –
The aged –

They all need John Bell's Tonic Phosphates

Sales are soaring –
order now!

JOHN BELL, HILLS & LUCAS LTD.
Oxford Works,
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EPHEDROL

BRAND

For the relief of

COLDS *and* CATARRH

The catarrh season will soon be with us again, when you can recommend Ephedrol with confidence in the quick relief it will give to your customers.

Its patent nasal application bottle is infinitely better, safer and easier to use than spray or dropper, and can be carried in handbag or pocket without fear of leakage.

Now packed in Cartons and Display Outer.

RETAIL PRICES
1/10 and 3/8
Including Purchase Tax

TRADE PRICES
Excluding Purchase Tax

Small size:
1 doz. 12/- per doz.
3 doz. 11/- per doz.
Large size:
1 doz. 23/- per doz.
3 doz. 22/- per doz.
3 doz. lots carriage paid.

CLAY & ABRAHAM LTD.
Manufacturing Chemists - **LIVERPOOL, 1**

REG. TRADE MARK
CANDA
REGD. TRADE MARK

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Dearborn
(1923) LTD.

MERCOLIZED WAX . . . . *for nightly skin care*

PILENTA SOAP . . . . *for the complexion*

SIPOLITE . . . . *a powder depilatory*

CLYNOL BERRIES . . . *a slimming preparation*

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New Price List—

Copies obtainable from:

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C.D.5

"Larola"

NEW RETAIL PRICES

(Operative from October 1st.)

GREATER PROFIT FOR YOU

Our new revised prices for "Larola" and Beetham's Glycerine and Cucumber become operative from Oct. 1st next and ensure for you a bigger margin of profit because, though retail selling prices have been increased, wholesale prices remain unchanged.

Order through your wholesaler or direct from:

M. BEETHAM & SON
CHELTENHAM

	Basic Retail Price	Wholesale Price per doz.	Retail Price (inc. P. Tax)
LAROLA	1/9	14/3	2/11½
	3/-	24/-	5/-

	Basic Retail Price	Wholesale Price per doz.	Retail Price (inc. P. Tax)
BEETHAM'S GLYCERINE & CUCUMBER	1/3	10/-	2/1
	2/3	17/6	3/8½
	3/-	24/-	5/-

The above prices are subject to a further **10% DISPLAY DISCOUNT** on all orders value £5 and over (excluding P. T.)
Full Price List of all Larola Toilet Preparations available on request.

IF ITS *Salicylates!*

ACID SALICYLIC B.P.
SODIUM SALICYLATE B.P.

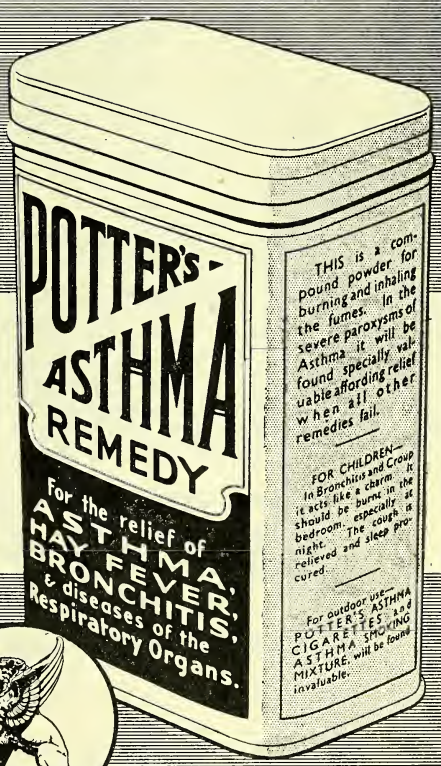
We SPECIALISE IN THE MANUFACTURE OF B.P. SALICYLATES OF THE FINEST QUALITY AT COMPETITIVE PRICES.

The **WARRINGTON CHEMICAL & DRUG Co. Ltd**

PADDINGTON WORKS, WARRINGTON, England. Grams "Salicin" Warrington. Phone Warrington 2331–2

WCD FINE CHEMICALS CO. LTD.

A BIG *Selling line*



NATIONALLY ADVERTISED P.A.T.A. RETAIL 2/5 including P.T.

18/- doz. (P.T. 6/- doz.)

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Phone: MOTHERWELL 1413. Grams: Horehound, Motherwell.

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P.C.T.9.B.

CACHETS

We are glad to announce that once again CACHETS, both wet and dry closing, are available in all sizes. We have recently been able to reduce prices and would be glad to send a new list to any Pharmacist on request

THOS. CHRISTY & CO. LTD
FARNHAM — SURREY

The ARTHOL
TRADE MARK
MANUFACTURING Co., LTD

PERFUMES

CONCENTRATED ESSENCES
AROMATIC CHEMICALS
SYNTHETIC ESSENTIAL OILS
TERPENELESS ,,
for all purposes

ARTHOL

SEALAND ROAD CHESTER

GRAMS: "SYNTHETICS," CHESTER A.B.C. CODES, 5th & 6th EDITIONS PHONE: CHESTER 25664

"So much more convenient!"

your customers will say when you show them this new 'Empirin' Compound pack

'Tabloid' 'Empirin' Compound is now available in this attractive new strip-pack. Holding thirteen separate strips, each containing two compressed products, it is not only more convenient for your customers but provides improved protection for the products. The special bonus terms continue. Retail price for pack of 26 remains the same as for the previous pack of 25: 1/5 plus 4½d. tax.

'TABLOID' BRAND **'Empirin'** TRADE MARK **Compound**

BURROUGHS WELLCOME & CO. *(The Wellcome Foundation Ltd.)* **LONDON**

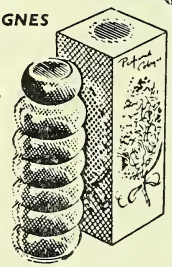
Goya

A good show . . .

of Goya Christmas Gifts will brighten your counter and window—intrigue your customers, and, as the prices are reasonable, good sales are bound to follow. Order now—with confidence. Display boldly—with profit. Five of the Goya Christmas range which will be heavily advertised during November and December are illustrated below.

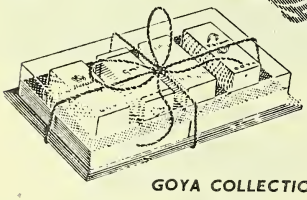
PERFUME COLOGNES

Made to match Goya's famous perfumes. Retail Price **3/-** *(One Ounce) and* **6/9d.** *(3½ Ounce). Trade Price* **14/6d.** *and* **32/8d.** *per dozen respectively.*



BATH DUSTING POWDER

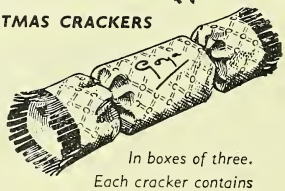
A recent addition to the GOYA range—makes the ideal Christmas gift. The drum is cellophane wrapped, and contains a luxury puff. Available in all the GOYA fragrances. Retail Price **8/6d.** *Trade Price* **41/-** *per dozen.*



GOYA COLLECTION

Containing one handbag phial of each of the following fragrances: Decision, Vibration, Gardenia and Great Expectations. Retail Price **11/-** *per Collection. Trade Price* **53/-** *per dozen.*

CHRISTMAS CRACKERS

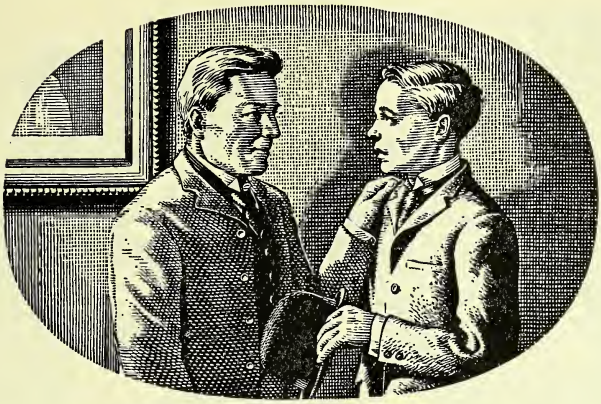


In boxes of three. Each cracker contains two phials. Cracker assortment in each box: Decision and Vibration, Goya Heather and 'No. 5', Gardenia and Great Expectations. Retail Price **5/6d.** *per cracker. Trade Price* **26/6d.** *per dozen.*

LIPSTICK

GOYA's Standard Lipstick with the new heavily lacquered gilt case and the creamy texture women want. In eight lovely shades. Retail Price **6/6d.** *Trade Price* **31/6d.** *per dozen.*

GOYA · 161 NEW BOND STREET · LONDON · W1



Young Man you have a great reputation to keep up

It is difficult to realise in these days of large staffs of highly qualified chemists, that the whole of the research and analytical work at Howards was, for over 90 years, performed by the partners themselves. It was not until the eighteen eighties that the first Assistant Chemist employee was engaged. You can be sure that the work started by Luke Howard in 1797 and subsequently so carefully developed by his descendants was not lightly entrusted to others without first ensuring that they were fully qualified to take the responsibility. This care in research, development and manufacture is still a distinguishing feature of Howards today.

Safe as HOWARDS

Bromides, Citrates
Iodides, Iron Salts
Bismuth Salts
Sodium Bicarbonate

HOWARDS

Lactates, Aspirin
Salicylates, Ethers
Quinine Salts
Tablets—etc.—etc.

HOWARDS & SONS LTD · ILFORD near LONDON

TBW/FCS

Encourage your staff to save a little every pay day

Starting a Staff Savings Group is a simple process. All the information, equipment and publicity material you require will be gladly sent free of charge on application to your Local Savings Committee or to the National Savings Committee, 1-5 Prince's Gate, London, S.W.7.

Issued by the National Savings Committee

Reasons why 12 Inecto sells itself

1 The best-known hair tint in th world.

2 Easily applied in a few minutes.

3 Does not wash or brush out or ru off.

4 Guaranteed permanent, improving th condition of the hair.

5 May be used before or after permanen waving.

6 Exactly matches Nature's ow colouring.

7 Made in 18 natural shades.

8 Ensures perfect results always.

9 Has been tried and tested for 40 years

10 Recommended by customers.

11 Consistently advertised.

12 Assures you of repeat business.

Obtainable from your Wholesaler

INECTO

ENQUIRY BUREAU:
INECTO HOUSE
27 DOVER STREET, LONDON, W.1
Telephone : Regent 7541

WE do the Advertising
YOU benefit from Selling

DAILY MAIL
DAILY EXPRESS
DAILY MIRROR
DAILY HERALD
NEWS CHRONICLE

WITH THESE FREE SHOWCARDS AND WINDOW STREAMERS

VACCO Vacuum Flask advertising — to over 14,000,000 people monthly ! — creates widespread demand. Divert this demand to your shop with these striking colour displays, free to every stockist. Details and terms from Vacco Sales Ltd., Grosvenor Gardens House, Grosvenor Gardens, S.W.1. Tel : Victoria 8785/6

VACCO
The QUALITY Vacuum Flask

LINK UP AND SELL !

BARBITURATES

ALLOBARBITONE, BARBITONE, SODIUM BARBITONE, BUTOBARBITONE, CYCLOBARBITONE, PHEMITONE, HEXOBARBITONE, PHENOBARBITONE

OXYQUINOLINE

POTASSIUM OXYQUINOLINE SULPHATE, CHINIOFONUM, DI-IODO HYDROXYQUINOLINE, (Powder and tablets)

ASPIRIN

ASPIRIN TABLETS, CALCIUM ASPIRIN

Enquiries invited for prompt or contract deliveries by:

PIERSON, MORRELL & CO. LTD.
THE ORIGINAL BRITISH ASPIRIN MAKERS
BARNET, Herts.

Telegrams: Pierson Morrell Barnet *Telephone:* BARnet 0723

We are TOTALITARIANS

ABOUT CORKS

LET'S admit it. So far as corks are concerned, we're out-and-out dictators. Regimentation, standardization—these are our watchwords. We plead guilty to our reputation for reducing corks to a state of *unbelievable* uniformity.

"Want to be *different*, eh?"

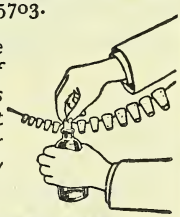
We do it by sheer ruthlessness. Corks hate us! Boiled alive, pressed flat, shut in the dreaded "hot-box," they are then sliced and punched, tapered, sanded, notched, bleached and branded—no atrocity is spared to stamp out individuality.

Not a cork can escape; many are completely eliminated. Sometimes only 5 per cent. of a *whole batch* survive to become corks of our Grade A quality. If a cork is even 1/63rd of an inch too small, it is pitilessly rejected and ground into by-products.

* * *

IF YOU, too, feel totalitarian about corks, and want them, in each grade, as uniform in size and quality as skill and experience can make them—please get in touch with us by letter or telephone. Armstrong Cork Company, Ltd. (Closure Division), Kingsbury, London, N.W.9. Telephone: Colindale 7080. Scottish Branch: 5 Oswald Street, Glasgow, C.1. Telephone: Central 5703.

FREE ON REQUEST. The handy Armstrong String of Standard Cork Sizes shows at once what size you want—whether for dispensing or for ordering supplies. May we send you one?



ARMSTRONG'S CORKS

CORKS · CROWN CORKS · MOULDED CAPS

JKL

ANIS OIL
AGAR AGAR
ALOES CAPE and CURACAO
BELLADONNA LEAVES and ROOT
BERGAMOT OIL
CAMPHOR, JAPANESE
CHILLIES
CINCHONA BARK
DIGITALIS LANATA
LIQUORICE ROOT and JUICE
MENTHOL CRYSTALS
ORANGEPEEL
PEPPERMINT OIL
SAGE LEAVES
STROPHANTHUS SEED
TONQUIN BEANS
and all other crude Drugs, Essential Oils and Spices.

JOHN KELLYS (LONDON) LTD.

24 OLD BROAD STREET, LONDON, E.C.2
Telephone: LONdon Wall 4882, 6585. 6586
Telegrams: "Ergotine, Stock, London"

NEW YORK: Kellys America, Limited, 2 Broadway, New York, 4.
Telegrams: "Ergotine" New York.

N.V. SOCIETEIT VOOR CHEMISCHE INDUSTRIE

"KATWIJK"

KATWIJK-ANN-ZEE HOLLAND

Producers of:

CAFFEINE AND SALTS
CYCLOBARBITONE (ACID & CALCIUM SALT)
THEOBROMINE AND SALTS
PENTAMETHYLENETETRAZOL (Syn. LEPTAZOL B.P.)
DIPHANTOINE (DIPHENYLHYDANTOINE) PURE, SODIUM AND CALCIUM

London Agents:

GREYER, BRECHEISEN & Co., Ltd.
BUSH LANE HOUSE, CANNON STREET, LONDON, E.C.4.
Telephone: MAN 9030

Lip-Cote has come to stay !

Women everywhere are finding tha Lip-Cote does really SEAL the lipstick and chemists throughout the country are finding new sales that bring better profits.

Tone up your sales with Lip-Cote—the only transparent coating that "holds" the lipstick for hours on end.

Lip-Cote

SEALS the lipstick

by
P. (Cosmetics) Ltd., 37 Chesham Place, London, S.W.1 *Telephone: SLOane 4107*

Have you seen

THIS

new beautifully designed showcard size 23″ x 17½″ in full colours ?

With the two side panels 17″ x 10½″ each also supplied, the whole makes an attractive window display that compels attention, and creates sales.

THE COMPLETE SET IS FREE. Ask our representative, or write to us for your FREE set.

EDME "AUTUMN SUN" is *the* Malt and Oil with the *"taking flavour."*

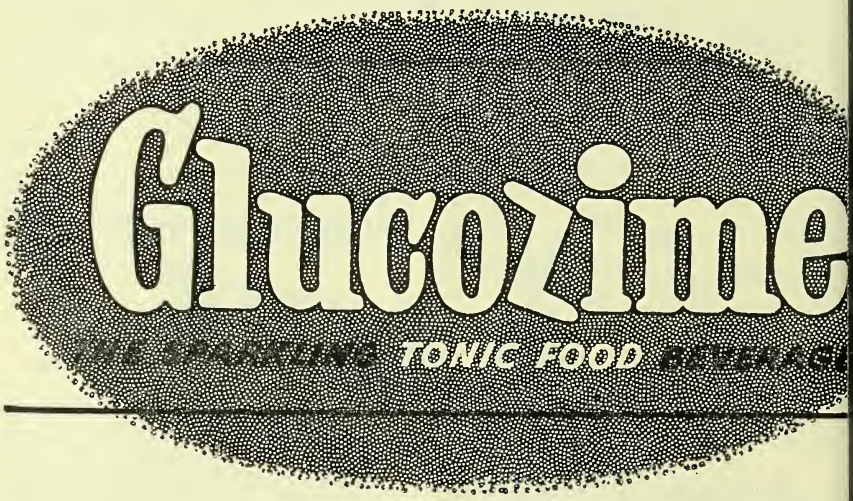
For prices and further particulars write to:—

EDME LIMITED
84-86 REGENT ST., LONDON, W.1
Phone: Regent 5563-4

For the first time

A VITAMIN-ENRICHED GLUCOSE DRINK

sustaining, restorative, and invaluable invalids and convalescents



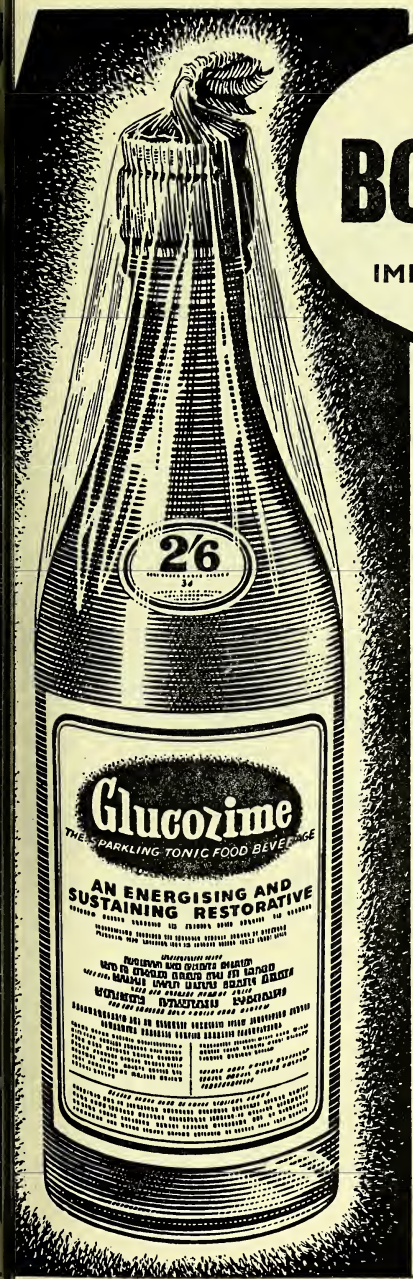
For the first time—a Vitamin-enriched Glucose drink which fully justifies its claims to be a tonic food beverage. Sparkling and deliciously palatable, it contains both Glucose and Vitamin B_1 and is the only restorative of this type on the market with such complete tonic qualities.

STANDARD TRADE TERM

Bottle deposit of 3/- pe refunded on retur

Your return
Buying price
Your profit
% on return
% ON COST 3

Order now from yo



A
GREAT DISPLAY
BONUS OFFER
INTRODUCES THIS
IMPORTANT NEW PRODUCT
SEE BELOW ✱

- **UNIQUE VITAMIN-ENRICHED GLUCOSE DRINK**
- **UNUSUALLY GENEROUS TRADE TERMS**
- **LABEL APPROVED BY THE MINISTRY OF FOOD LABELLING & STANDARDS DIVISION** as complying with the new Labelling Order 1950.
- **SPECIALLY RECOMMENDED** for Mental and Physical Fatigue, Lack of Appetite, Neuritis, Loss of Weight, Fever, Acidosis, Pregnancy Sickness, Nausea and for children suffering from Biliousness, Failing Appetite, Listlessness, and other common children's illnesses.

✱ **EVERY 12 BOTTLES INVOICED AS 11**
until Saturday, December 30 on condition of window or counter display.

Retail Price 2/6 plus 3d. deposit on bottle and stopper (returnable)

BONUS TRADE TERMS
Bottle deposit of 3/- per dozen refunded on return

	DOZ.
Your return	30/-
Buying price	20/7½
Your profit	9/4½
% on return	31·2%
% ON COST	45.4%

or Write to HEATHER PARK LABORATORIES LTD., KENT HOUSE, 87 REGENT ST., W.1.

BUSH

for Pharmaceutical Chemicals

EUCALYPTOL B.P.

EUGENOL B.P.C.

METHYL SALICYLATE B.P.

TERPINEOL B.P.

W. J. BUSH & CO. LTD. LONDON. E.8. ENGLAND

Distinctive Pack

"TARTAN" BRAND MALT EXTRACT with COD LIVER OIL B.P.

Delicious Butterscotch Flavour

1 and 2 lb. Sizes Now Available for Immediate Delivery.

Particulars and Prices of this and other packs on application

THE ALLIED DRUG & CHEMICAL CO.

ROBERT ST., HAMPSTEAD RD., LONDON, N.W.1 Phone : EUSton 2524.

THE WAREHOUSE AT ÆGINA (GREECE)

"RELIANCE"

SPONGES

AND CHAMOIS LEATHERS

The illustration above is of one of the largewarehouses on the Greek island of Aegina, where sponges from all the big fishing centres throughout the Mediterranean are collected, prepared and packed for distribution to the markets of the world. In our 100 years of steady progress we have maintained our reputation as the "right house" for Sponges and Chamois Leathers ("Reliance" Brand). Your enquiries will receive our courteous, prompt and knowledgeable attention.

Send for illustrated leaflet showing our full range of attractive sales-producing sponge-boxes.

CRESSWELL BROS. SPONGES

(INTERNATIONAL SPONGE IMPORTERS LTD.)

INTERNATIONAL HOUSE

BUCK STREET, CAMDEN TOWN, N.W.1

'PHONE: GULLIVER 5462-3. *'GRAMS: SPONGE, NORWEST, LONDON*

C6

Reminding you

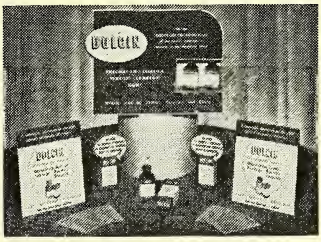
THE DOLCIN DISPLAY BONUS OFFER IS OPEN!

CLOSING DATE NOVEMBER 4th

There is still time to take advantage of this special offer . . . . . .

Your orders for Dolcin 100's will be met at the rate of 13 to the dozen in return for your promise to display in your window and on your counter for a period of 14 days, the dignified Dolcin show material as illustrated, which we will send you on receipt of your order

Identify yourself with the continuous Dolcin advertising which for the period of this scheme has been intensified, and increase the profit on your Dolcin sales to 44 % on cost — 2/8d. on every sale.



Send your order today. If you have not received literature giving detailed particulars, we will gladly send it to you. Send orders to the address below, naming your wholesaler.

DOLCIN

Reg. Trade Mark

FOR AILMENTS IN THE RHEUMATIC GROUP

Sole Distributors: **TAMPAX LIMITED** 110 JERMYN STREET, LONDON, S.W.1

ISAAC WEBSTER & SONS, LTD.
ABBEY WORKS, KIRKSTALL, LEEDS
Phone : 51580 Leeds. Grams : Isaac Webster, Kirkstall

LABELS

Just 1,000 to try out a new preparation, or larger quantities for a big sale, plain letterpress or lithographed in black or many colours

CONSULT

TOWNSENDS

THE LABEL EXPERTS

EXETER

"Eagle" Brand Chemicals

B.P.
PRECIPITATED
SULPHUR

PHOTOGRAPHIC
HYPO
AND
SULPHITE
— CRYSTALS and ANHYDROUS —

EPSOM SALTS
GLAUBER SALTS
ARSENIATE OF LEAD

Enquiries Invited

JOHN RILEY & SONS, LTD
Chemical Manufacturers
HAPTON near BURNLEY

Telegrams : "Rileys Hapton"
Telephone : Padiham 290/1

The **PEARSON VACUUM** *Liquid* **FILLING MACHINE**

- RAPID
- ACCURATE
- NON-DRIP
- COMPACT

The "PEARSON" Liquid Filling Machine can be operated by unskilled labour. It is easily adjusted for different sizes of bottles, etc., almost any of which can be rapidly filled with fluid without spill or drip.
The machine can be quickly cleaned and sterilized.

S.W. PEARSON LTD.
PECKLETON COMMON · NR. EARL SHILTON · LEICESTER
TEL · DESFORD 381/2 GRAMS · RENCOL

5 WORLD-FAMOUS PRODUCTS

promote lustrous & healthy hair for both men & women

stributors— **FASSETT & JOHNSON LTD.** 86 Clerkenwell Rd. London E.C.1

REGD. **Reliance** TRADE MARK

THE WORLDS FINEST AND MOST ATTRACTIVE MOULDED SEAMLESS HOT WATER BOTTLES

BEING THE "ORIGINATORS" OF THIS LINE IN GREAT BRITAIN AND THE LARGEST PRODUCERS IN THE WORLD WE CAN OFFER YOU A REALLY BEAUTIFUL RANGE—EACH PACKED IN CELLOPHANE BAGS

BRIGHT COLOURS—SUPERB FINISH

Place your order for the coming season NOW to ensure supplies. Over 40 models produced.

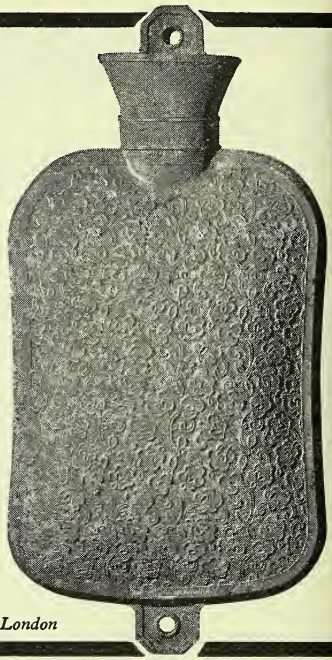
Phone or write for samples and prices

RELIANCE RUBBER CO. LTD

LOTS ROAD · LONDON · S.W.10

ESTABLISHED 1889

Phone: Flaxman 6200 *and* 0985/6. *Grams: 'Doorstop' Fulroad, London*



THE WORLD'S MOST FAMOUS HAIR TONIC

stops hair falling starts sales rising

Petrole Hahn has been renowned throughout the world for over 70 years as an unrivalled preparation for preventing scurf, dandruff and falling hair. This fine reputation, growing every year, means *certain* sales for you. Place your order *now*—Hovendens will fill your order immediately—no matter how large.

Small size (6/- retail): 28/8 doz. plus 100% P. Tax.
Large size (10/- retail): 48/- doz. plus 100% P. Tax.

PETROLE HAHN

Hovendens

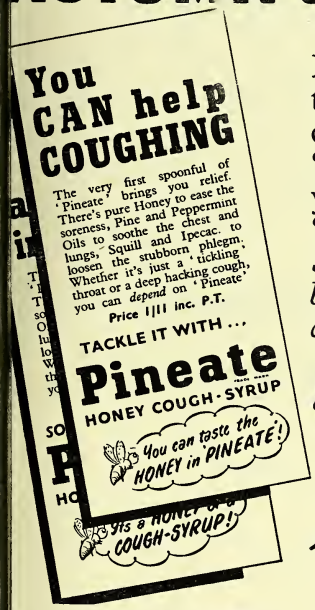
SOLE DISTRIBUTORS

LONDON: 29-33 BERNERS ST., W.1. **CARDIFF:** 9-10 NEWST. **BELFAST:** 10 ROYAL AVE. **LIVERPOOL:** H. E. JARVIS & CO. LTD. 5-7 FLEET STREET. **MANCHESTER:** WATTS BROS. (M/C) LTD. 72 CANNON STREET. **BLACKPOOL:** WATTS BROS. (M/C) LTD. 88 CORONATION ST.

STOCK 'PINEATE' NOW

and be ready for

AUTUMN & WINTER COUGHS



Display the lines that sell — the lines that are Nationally Advertised. Your customers will soon be seeing the new 'Pineate' campaign so be sure you get your share of this business by displaying 'Pineate' on your counter.

Selling Price (inc. P.T.) 1/11*d. per bottle. Trade price (excl. P.T.)* 13/9*d. per doz. Purchase Tax* 4/7 *per doz.*

YOU GET AN EXTRA 12½% on an I.C.C £10 parcel★ selected from any of these lines

'PINEATE' Honey Cough-Syrup. 'ALKIA' Saltrates. 'ANNE FRENCH' Cleansing Milk. 'ANADIN.' 'BiSoDoL.' 'BISURATED' Magnesia. 'FREEZONE' Corn Remover. 'KOLYNOS' Products. 'LYSTONE' Salts. 'REUDEL' Bath Salts.

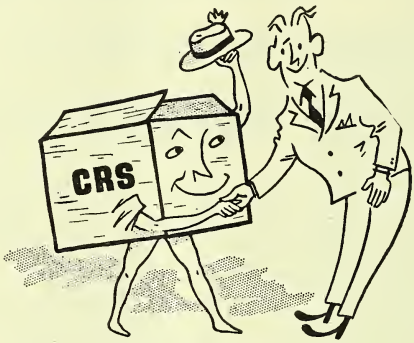
★

YOUR SELLING PRICE - - - -	£13 6s. 8d.
YOUR OUTLAY (£10 less 12½%) -	£8 15s. 0d.
YOUR PROFIT - - - - - -	£4 11s. 8d.

Pineate Honey Cough-Syrup

TRADE MARK

International Chemical Co. Ltd., Chenies Street, London, W.C.1



We wish those Containers
Many Happy Returns

We really do welcome back your containers.

They can be used again.

It is a grand help to the deliveries of further supplies.

Look after your C.R.S containers and you will be helping to close the dollar gap.

CONTAINER RECOVERY HELPS NATIONAL RECOVERY

Container Recovery Service

S.P.D. Limited, 3-5 Salisbury Square, London, E.C.4

CRS 63-19

TO MEET A REAL DEMAND

Amm-i-dent

in TOOTHPASTE form

AT last, we have succeeded in producing Amm-i-dent's Dibasic Ammonium Phosphate-Carbamide principle in toothpaste form.

Now the thousands who have been told by their Dentists that Amm-i-dent really does reduce dental caries, can get it in the form they prefer.

Amm-i-dent Toothpaste is just as effective in preventing decay as Amm-i-dent Powder. It has a distinctive refreshing flavour which will prove very popular and it makes and keeps teeth beautifully white. It is, in fact, the perfect toothpaste at last.

Take advantage of the introductory Bonus offer today and see how quickly your customers clear your stocks.

INTRODUCTORY BONUS OFFER

For a limited time, on all first orders we will charge each dozen as 11. Each dozen packed in striking, counter saving display container. Normal terms 12/7 per dozen, plus 4/1 Purchase Tax. Retail 1/9 a tube, inc. Tax.

Post your order today to :—

WALTER CROWE, LIMITED

3 & 4 LITTLE RUSSELL STREET, LONDON, W.C.1

Sole Distributors of Amm-i-dent Toothpaste

Made and guaranteed by WERNET DENTAL MFG. Co., Hatfield, Herts.

BRYLCREEM *announce* NEW RETAIL PRICES

As a result of the constantly rising cost of materials, we are reluctantly compelled to increase the prices of Brylcreem. Despite these increases, listed below, Brylcreem, the world's fastest-selling hairdressing, still represents the finest possible value. All goods despatched on and after October 16th will be invoiced at the following prices :—

	NEW PRICE WHOLESALE (ex. tax)	PURCHASE TAX	NEW PRICE Retail (inc. tax)
Tall Jar & Medium Tub	**10/2** doz.	10/2 doz.	**2/-** each
Tube	**10/2** doz.	10/2 doz.	**2/-** each
Large Tub	**19/1** doz.	19/1 doz.	**3/9** each

Corresponding changes have been made in the Display Parcel terms, and full details have been posted to all direct customers.

. . . AND A NEW 'Junior' TUB

Hand-in-hand with these new prices comes good news that will strengthen still more the popularity of Brylcreem. The amazingly successful new-style Brylcreem tub now has an up-and-coming companion retailing at only 1/4d. This new pack will bring Brylcreem within the reach of an even greater number of men. Here is a sure-fire line that you must include in your orders. Non-stop nation-wide advertising will continue to keep Brylcreem right on top of public demand. Stock up with Brylcreem, step up your displays and pep up your profits.

COUNTY PERFUMERY CO. LTD., STANMORE, MIDDLESEX.

.. and introduce the

NEW 'JUNIOR' TUB

1/4D RETAIL

ACTUAL SIZE

WHOLESALE PRICE 6/10d. per dozen (plus 6/10d. Purchase Tax) and appropriate Display Parcel terms.
Retail price 1/4d. (including tax).

BRYLCREEM

THE PERFECT HAIR DRESSING

royds 1'28

Sell

DUNLOPILLO

Comfort

to your customers!

DUNLOPILLO

THE ORIGINAL LATEX FOAM CUSHIONS

DUNLOP RUBBER CO. LTD. (DUNLOPILLO DIV.), RICE LANE · WALTON · LIVERPOOL 9

LONDON: 19/20 NEW BOND STREET · W.1

FOUNDERS OF THE LATEX FOAM INDUSTRY

RING CUSHION

now only 10/-

TYPE NO. E. 10504S

Ring Cushion (non-reversible) ideal for invalid or travel use. 16″ diameter, 5″ hole. Should be placed in a light cover or pillow-case during use.

HORSESHOE CUSHION

only 13/-

TYPE NO. E. 10505

For use with open end towards the head of the patient. Tapered edges prevent any jar should patient slip off cushion. Should be placed in a light cover or pillow-case during use.

50D/D39

Regd Design

6 oz. Best White Sulphite

SEND FOR SAMPLE ROLL and COUNTER DISPLAY STAND

HUNT & COLLEYS LIMITED

HUCKNALL RD., NOTTINGHAM. Tel. 61088-9

Richest in LANOLIN..

the shampoo that benefits all types of hair..

Bristow's LANOLIN Shampoo has captured the confidence of the public. They have proved beyond doubt that it gives their hair gloss, vitality and obedience. Show it . . recommend it . . sell it !

PRICES & TERMS

HANDY TUBE: 7/- a dozen plus purchase tax at 33⅓%, to retail at **1/-**.

STANDARD TUBE: 12/- a dozen plus purchase tax at 33⅓%, to retail at **1/9**.

T. F. BRISTOW & CO. LTD., OLD BOND STREET, LONDON, ENGLAND. T29/A

By Appointment
Brushmakers
G.B. Kent & Sons Ltd.

IMPORTANT NOTICE

Announcing—

The *NEW* 'POPULAR' model of the KENT-COSBY '*Allure*' Perfume Hairbrush

Retailing at 25/- inc. Pur. Tax

To the world's greatest selling hairbrush is now added a NEW model for a NEW market at a price within the buying range of the majority of your customers.

The new "POPULAR" model embodies the design and patented world exclusive hygienic and perfume features of the Kent-Cosby "Allure" Hairbrush in a new range of enchantingly coloured enamelled wood handles, and this brings to an immense new public those benefits which are now being enjoyed by hundreds of thousands of discerning women.

National advertising will increase to build up your Christmas trade. Place your Christmas order now and be certain of delivery.

PERF
PAD

- REFILL TAKES OUT TO WASH
- HANDLEBACK NEVER SPOILT BY WATER
- ABSOLUTE CLEANLINESS AT BRUSH BASE

The "ALLURE" Range

New "POPULAR"	25/- each	Retail Price including Purchase Tax
Existing "PRINCESS"	39/6 ,,	
Pure Bristle "DE LUXE"	63/- ,,	

Remember the '*Allure*' Brush is an ideal Christmas Gift Li
EVERY day is somebody's birthday.

G. B. KENT & SONS LTD. 24 OLD BOND STREET, LONDON, W.1
Telephone: REGent 1471/2/3. Telegrams: Tricho. Piccy. London.

NEW PACK *To meet* A NEW DEMAND

CIMLAC GAUZE

A bland dressing incorporating antiseptics of proved low toxicity in a sterilised glyco - gelatin base which provides marked healing and coagulating properties.

●

The acute shortage of Hospital beds has meant that many more patients re being treated at home, and as a result, more and more Cimlac Gauze is being prescribed by the Medical Profession for the home treatment of, CHRONIC ULCERS, BURNS, CARBUNCLES and WOUNDS.

To meet this demand we introduce the

"PRESCRIPTION PACK"

Pack: Aluminium box containing 12 pieces 3½″ x 3½″. Each piece separately heat-sealed in an amber, moisture proof cellulose tissue envelope.

Price 4/3 per box. Trade Price 2/10 per box.

Cimlac Gauze, is still available in the Hospital Pack . . . Boxes containing 24 pieces 4″ x 3½″.

CALMIC LIMITED · CREWE HALL · CREWE

TEL. CREWE 3251 (5 lines). LONDON: EAGLE HOUSE, JERMYN ST. S.W.1.

Now—

expand your sales of quick selling Ribena

RIBENA is in plentiful supply. It is a line that sells on sight and always brings repeat orders. Make the most of this opportunity to bring the boon of delicious Ribena to *everybody*. Priority restrictions are finished.

Make a counter display of Ribena and watch sales soar

Ribena

BLACKCURRANT SYRUP

H. W. CARTER & CO. LTD.,
THE ROYAL FOREST FACTORY · COLEFORD · GLOS.

NEW Eskacillin

liquid oral penicillin

'Eskacillin' is a liquid oral penicillin which is unusually palatable and easy to administer. This new preparation contains crystalline potassium penicillin G in a deliciously flavoured and carefully buffered vehicle – in a combination which ensures maximum stability and effectiveness.

Each prescription is freshly compounded by mixing the stable dried penicillin with the aqueous vehicle. 'Eskacillin' is specially buffered to maintain its potency for at least 7 days when kept in a cool place.

'Eskacillin is available - on prescription only - in 2 fl. oz. bottles. Each medical teaspoonful contains 50,000 i.u. of penicillin the same potency as the usual oral penicillin tablet.

***Trade price 135/- per doz. Retail price 15/- each** (tax free)*

ENLEY & JAMES, LTD., 123 COLDHARBOUR LANE, LONDON, S.E.5
r Smith Kline & French International Co., owner of the trade mark 'Eskacillin'
:T100

Mary Drake

LUXURY SOAP

for that English complexion which
is the admiration of the world

Mary Drake

A CHOICE OF SIX EXQUISITE
PERFUMES. IN SIX PASTEL SHADES

Bouquet · Magnolia · Bon-bon · Jade · Honeysuckle · Sandalwood

THREE OZ. TABLET 1/3 (10/- DOZ. INC. TAX). SIX OZ. TABLET 2/6 (20/- DOZ. INC. T

Harry Green Ltd., Ajax Works, Barking,

Printed by The Haycock Press, Ltd., 106-140 Neate Street, Camberwell, S.E.5, and Published by the Proprietors, Morgan Brothers (Publishers), Limited, at 28 Essex Street, Strand, London, W.C.2.

WHIFFEN'S

FINE CHEMICALS

XANTHINE ALKALOIDS
and preparations

CAFFEINE · THEOBROMINE · THEOPHYLLINE

TESTED PURITY

WHIFFEN & SONS LTD · FULHAM · LONDON SW6
FINE CHEMICAL DIVISION OF BRITISH CHEMICALS & BIOLOGICALS LTD.
Telephone : RENown 3416 *Telegrams : Whiffen Walgreen, London*

The CHEMIST AND DRUGGIST
OCTOBER 21, 1950

An ethical preparation already extensively prescribed by the medical profession

Effico TONIC

A NEW TONIC
EFFICACIOUS
PALATABLE
ECONOMICAL

for Nervous and Digestive Disorders

SPECIAL AUTUMN BONUS OFFER

(On orders for 1 Dozen or more received in October)

EVERY 12 BOTTLES INVOICED AS 10 ONLY

Normal Trade Price	Bonus Trade Price	Retail Price	Gross Profit on Bonus terms
24/- per doz. case plus P.T. 8/-	20/- per doz. case plus P.T. 8/-	36/- per doz. case plus P.T. 8/-	44—4%

Above prices carriage paid. An excellent over-the-counter line—Counter Display Stand in every 1 Dozen case.
NOTE—The Dispensing Pack does not carry a bonus; price 24/- per dozen.

FLETCHER, FLETCHER & CO., LTD
VIBRONA LABORATORIES, HOLLOWAY, LONDON, N.7